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WORLD MARITIME UNIVERSITY

Malmo, Sweden

**Addressing The De-Skilling of Seafarers Post
Seagoing Careers**

The Case Study of Kenya.

By

TALIB IBRAHIM MOHAMMED

Kenya

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

In

MARITIME AFFAIRS

(MARITIME EDUCATION AND TRAINING)

2019

Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

(Date):

Supervised by:

Supervisor's affiliation:

Acknowledgments

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Abstract

Title of Dissertation: **Addressing The De-Skilling of Seafarers Post Seagoing Careers: The Case Study of Kenya**

Degree: **Master of Science**

Dynamic changes in operations and technology has influenced tremendous developments and changes within the maritime and shipping industry. As a global industry a number of measures have been put in place to realise consistency and uniformity in training of seafarers for shipboard operations. However, challenges have arisen in mobility and transitions of seafarers across the industry notably the challenges faced by seafarers post seagoing careers. The dissertation presents a critical analysis of the phenomenon through a descriptive and analytical methodology to ascertain the gaps in seafarers training which need to be addressed to enhance suitability of seafarers for onshore jobs. This is approached through a specific case of the Kenyan seafarer. In addressing the phenomenon, the dissertation shall present a proposed framework for programme specifications and reference standards for both Technical and academic training to ensure harmonious transition from technical training to academic training for the seafarers.

KEYWORDS: MET, Education, Training, Seafarer, CoC, TVET, Certification, Maritime, Kenyan Seafarer, Seafarer Mobility,

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List of Abbreviations

CBET	Competency Based Education and Training
CUE	Commission of University Education
ECDIS	Electronic Chart Display and Information System
GoK	Government of Kenya
HELB	Higher Education Loans Board
ILO	International Labour Organisation
ILS	International Labour Standards
IMAREST	Institute of Marine Engineering, Science and Technology
IMO	International Maritime Organization
ISPS	International Ship and Port Facility Security Code
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KATTI	Kenya Association of Technical Training Institutions
KESSP	Kenya Educational Sector Support Program
KFSL	Kenya Ferry Services Limited
KICD	Kenya Institute of Curriculum Development
KIE	Kenya Institute of Education
KMA	Kenya Maritime Authority
KNEC	Kenya National Examination Council
KNQA	Kenya National Qualifications Authority
KNQF	Kenya National Qualifications Framework
KNTS	Kenya Navy Training School
KPA	Kenya Ports Authority
MET	Maritime Education and Training
MIoME	Mombasa Institute of Muslim Education
MLC 2006	The Maritime Labour Convention is an International Labour Organization convention, number 186, established in 2006
MoE	Ministry Of Education
MoEST	Ministry Of Education, Science and Technology
MOU	Memorandum of Understanding
MSC	Mediterranean Shipping Company
NACOSTI	National Commission for Science, Technology and Innovation
NI	Nautical Institute
OECD	Organisation for Economic and Co-operation Development
PIL	Pacific International Lines
QA	Quality Assurance
QM	Quality Management
QMS	Quality Management System
RINA	The Royal Institution of Naval Architects
RPL	Recognition of Prior Learning
SECO	Southern Engineering Company
SOLAS	The International Convention for the Safety of Life at Sea 1974
SSAC	Sector Skills Advisory Committee

STCW	The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 as amended
STCW Code	Seafarers" training, certification and Watchkeeping Code
STCW-F	The International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995
SUK	Seafarers Union of Kenya
T&D	Training and Development
T&DNA	Training and Development Needs Assessment
TCR 2016	Merchant Shipping (Training and Certification) Regulations 2016
TNA	Training Needs Assessment
TSC	Teachers Service Commission
TTI	Technical Training Institute
TUM	Technical University of Mombasa
TVET	Technical and Vocational Education and Training
TVET	The Technical and Vocational Education and Training Curriculum
CDACC	Development, Assessment and Certification Council
TVETA	Technical and Vocational Education and Training Authority
UNCTAD	The United Nations Conference on Trade and Development
WMU	World Maritime University

Chapter 1 – Introduction

1.1. Background

A number of factors have influenced substantive changes and developments in the Maritime and shipping industry through the years. These include a changing work environment (Grech, Horberry, & Koester, 2008), human factor and organisational change in shipping (Grech, et al, 2008; Berg, 2013; Kilic, Tavacioglu, & Bolat, 2013), advances and use of technology (Grech, et al, 2008; Petersen, Dittman, & Lützhöft, 2010; Petersen, Dittmann, & Lutzhoft, 2011), socio-economic factors (Kilic, Tavacioglu, & Bolat, 2013), changing dynamics of the maritime industry in global context in response to training excellence (Alimen, Jaleco, Pador, & Sequio, 2013), and politico-economic factors and security (Wardin & Duda, 2013). These factors have resulted in a different scope of skills, competencies, and proficiencies for onshore jobs which in turn has changed job descriptions and on the other hand created new job specifications. It is, therefore, important that Maritime Education and Training (MET) satisfy the changing industry through constant evolution (Lokuketagoda, Miwa, & Ranmuthugala, 2016).

Safety, security, shipping's environmental credentials, and indeed the whole future sustainability of the shipping industry are all dependent to a great extent on the cultivation of a capable and effective manpower resource. (O'Neil, 2003)

1.1.1. Seafarer Retention Debate

Among the key challenges identified for the maritime and shipping industry has been the retention of seafarers at sea (Caesar, Cahoon, & Fei, 2014; Vij & Goyal, 2018) and within the global shipping industry (Caesar, Cahoon, & Fei, 2015). While this is expected to translate into the mobility of officers into shore-side jobs, the maritime onshore industry has not expressly benefitted from this mobility. A critical look into the training structure methodology and paradigm approach shows that there is no clarity in distinguishing career pathways for seafarers while at sea and at the shore (Caesar, et al, 2014). The debate, therefore, take the prose of retention of seafarers

within the maritime and shipping industry. Caesar et al. (2014) also argues that *“Defining career paths for seafarers is necessary as they will supplement other efforts aimed at improving the recruitment and retention of seafarers among shipping industry employers.”* To achieve greater retention of seafarers it is important that policymakers and MTIs address the harmonisation of the traditional methodology of seafarers training and academic training (Manuel, 2017) to avail more career options.

1.1.2. Seafarer Deskilling Debate

Deskilling has been defined in numerous ways through different perspectives. The approaches relating to seafarers have largely revolved around new technology (Wood, 1987; Waschull, Bokhorst, & Wortmann, 2017), the exploitation of technology in addressing human element issues in safety and the influence of economic factors in reshaping the seafarer market (Ruggunan, 2008).

The interaction of humans and machines in terms of automation has influenced the debate of the deskilling of seafarers due to automation (Bhardwaj, 2013). The view of deskilling through automation is also supported by Porathe (2016), who acknowledges that it is not only a problem in the maritime sector but by large other occupations. Therefore, considering the competence and proficiency of the seafarer over a period of time, the traditional job description and specification agility in adaptation and evolution are required to enhance relevance in the changing working environment. Thus to conceptualise the interaction of the individual’s skillset vis-à-vis the particular working environment needs a specific insight to enable a paradigm.

1.1.3. Seafarer Training

To maintain safety and a safe environment, seafarers are trained to high standards of competence. These high standards are set, recognised, and certificated in line with the requirements of the STCW 1978 as amended. The STCW Convention and Code is designed as a global minimum standard that guides in developing consistent and uniform training on shipboard competencies across the parties to the convention (Ghosh, Bowles, Ranmuthugala, & Brooks, 2014); Caesar et al., 2014). Thus

compliance is a major determinant in the design and implementation of training curricular for seafarers. However, the STCW as amended defines shipboard competencies only. A Paradigm shift is therefore essential to enhance the mobility of seafarers to the shore side jobs and enhance the retention of seafarers in the maritime and shipping industry ashore. This necessitates the inclusion of other study areas relevant to shoreside jobs. In addition to the skills, understanding and proficiency outlined by the tables of competencies, skills such as management, logistics, shipping, leadership, and other non-technical skills are important for the next generation seafarer (Lewin, 2015; Barnett, Gatfield, & Peckan, 2006; International Association of Maritime Universities (IAMU), 2019). The MarTID (Maritime Training Insights Database) 2019 as such acknowledges the changing role of the modern seafarer. As such the right emphasis through an appropriate educational and training framework is required to address the challenge of lack of specific skills to qualify for onshore maritime and shipping vacancies (Ketchum & Pourzanjani, 2014; Barnett, Gatfield, Overgaard, Pekcan, & Graveson, 2006; Ali, 2009; Albert, Dodeler, & Guy, 2016). *“Unfortunately, the current paradigms focus on technical and emergency response to the detriment of the career needs of seafarers in the prevailing global labour market”* (Caesar, et al, 2014)

1.2. Problem Statement and Hypothesis

The transition of seafarers to onshore jobs and professions within the maritime and shipping industry has been a major setback to seafarers. While officers have a relatively clear path to onshore jobs as surveyors and pilots, ratings end their professional life with the end of their seagoing careers. Although Maritime Training Institutions (MTIs) absorb the rating in their training structure, the rate of engagement has been extremely low largely affected by the dynamics of recruiting of the MTIs including job designation as technicians. Such challenges render the seafarers ill-equipped for onshore employment post their seagoing careers. The lack of training programmes for seafarers in their continuous professional development is the leading cause for the deskilling post their seagoing careers. The dissertation shall hence assess

the extent of the disparity in skills acquired through the training programmes in place and the skills required for onshore maritime job competencies.

1.3. Aims and Objectives

The following are the aims of the dissertation and objectives that shall address the perspective presented.

1.3.1. Aims

The aim of the research is to address the challenges posed by change of skills-set required for onshore jobs through short and long terms measures to enhance the employability of seafarers post-seagoing career period of the Kenyan seafarer.

1.3.2. Objectives

The objectives to be achieved are:

- i. Identify the key challenges affecting the employability of seafarers after their seagoing careers in a global context and ascertain the level of vulnerability posed by such challenges.
- ii. Map seafarer training competencies in compliance with the STCW Convention against specific skills for onshore careers and qualifications following the guidelines by the different regimes that regulate academic and TVET Education in Kenya.
- iii. Review existing curricula and map the curricula to establish technical and academic reference standards to satisfy industry required skills and knowledge both on-board and ashore.
- iv. To establish a harmonised system for a dynamic skill upgrade framework to address the changing dynamics of seafarers training and satisfying industry needs.

1.4. Research Questions

To achieve the objectives outlined, the following questions are relevant:

- i. What are the human resource management challenges that render seafarers post seagoing careers unsuitable for jobs ashore?

- ii. Other than the STCW Convention what impact do national regulatory regimes have on seafarer training at the technical and academic levels?
- iii. What are the identifiable maritime and shipping industry skills required as influenced by the change of environment to the seafarers and how does it affect the development of training programmes?
- iv. Does the current training regime enable the seafarer to transition from the shipboard environment to the jobs ashore?
- v. What is the level of interaction of MTIs with the industry stakeholders to realise relevant and progressive training programmes that address the needs of the industry both long term and short term?

1.5. Methodology

The research shall adopt a descriptive and analytical approach. Data shall be collected over a period of four (4) months. This shall be enhanced by an item specific approach through the study of the qualification demographic of seafarers in Kenya in validating the hypothesis of Kenyan seafarers due to a directional training methodology. The item is defined as the qualification of seafarers for maritime jobs ashore. Questionnaires and interviews with industry stakeholders including the maritime authority, MTIs, Shipping and ship management companies, the port authority and the seafarers shall constitute the core of the data. Existing training programmes, audits, relevant regulations, and statutory requirements shall provide the of the remedial action.

1.5.1. Methods and Tools

Research data shall be collected through questionnaires, interviews and critical analysis of existing curricula, syllabi and training programmes.

1.5.2. Institutions and Organisations of Interest.

To collect data, the institutions of interest have been grouped in thematic populations. The research shall be conducted within the scope of training and employment. The selection is based on the following functions; training and education, trade union,

regulatory, national policy coordination and employment. This is informed by the distinct expectation for each thematic segment and level of interest in MET.

a. The Regulatory and Policy Segment.

The individuals in the following institutions shall be approached

- i. The Kenya Maritime Authority preferably the Head of Safety under whose docket falls MET.
- ii. State Department of Shipping and Maritime Affairs.
- iii. Technical and Vocational Education and Training Authority (TVETA).
- iv. Kenya Institute of Curriculum Development (KICD).
- v. State Department for Vocational Technical & Training.

b. Employer Consortium

The following employers are sampled from the wider maritime and shipping industry. The main aim is to ascertain the skill set required for optimal and efficient operations in their environments and map their overlap with seafarer training.

- i. Marine Operations Department at the Port of Mombasa.
- ii. The ICDL Nairobi¹
- iii. Shipping and ship management companies
 - a) Seaforth
 - b) Inchcape Shipping Company
 - c) Pacific International Lines (PIL)
 - d) Express Shipping & Logistics (EA) Ltd
- iv. Grain Bulk Handlers
- v. Vessel owning and operating companies²
 - a) Kenya Ferry Services LTD
 - b) SECO

¹ Where time constraint shall be a major factor, the interview shall take place with owners and management of Container Freight Stations whose mode of operation is close to the container terminal operations.

² This is not limited to identified companies but previous vessel owners shall also be interviewed.

- c) COMARCO
- d) Motaku Shipping

c. Unions and Lobby Groups

These groups have played active roles as pressure groups and stakeholders. They are therefore of interest in influencing MTIs to adapt and review their training programmes to satisfy industry-specific needs and as such secure employment for their members. The following are of interest:

- i. The Seafarers Union of Kenya (SUK).
- ii. The Dock Workers Union (DWU).
- iii. International Transport Federation (ITF)³

d. Training Institutions

MET programmes within the following institutions shall be analysed to determine the scope of MET in the programmes courses and curriculum. This shall be mapped to the industry requirements to determine the level of satisfaction of the industry needs. The result shall inform the development of the seafarer training framework to enhance skills of trainees for the wider maritime industry qualification.

- i. Technical University of Mombasa (TUM),
- ii. Bandari College⁴,
- iii. Kenya Coast National Polytechnic,
- iv. Jomo Kenyatta University of Agriculture and Technology (JKUAT).

Kenya has launched its Coast Guard Service (KCGS)⁵ in addition to its Navy and as such with closer interaction with the civilian population a particular interest arises. However, the degree of participation in the data collection from policymakers within

³ The ITF Inspector in Mombasa shall be interviewed.

⁴ A legal Notice to transform the College to a Maritime Academy has been issued. LN 233- State Corporations Act (Bandari Maritime Academy) Order, 2018

⁵ Established through the Kenya Coast Guard Service Act No. 11 of 2018 (L.N. 204/2018). Its first vessel is the Kenya Coast Guard Ship - KCGS DORIA Doria currently manned by the Kenya Navy Personnel.

the institution is a subject of confirmation due to the strict bureaucracy and confidentiality.

1.5.3. Data Analysis and Expected Results

The MET component in the Kenyan educational and training system is relatively young. Kenya was included in the ‘IMO Whitelist’⁶ in 2010 and has since developed programmes to train seafarers at different levels. The majority of seafarers are trained to specific demands of marine operations at the Kenya Port Authority and recently the needs of the Kenya Maritime Authority (KMA) that require Certificates of Competency. These demands are met on permanent and pensionable employment. The analysis of the data is expected to lead to the development of a framework to address the deskilling of seafarers through a holistic training framework in a bid to enhance their skills and qualifications required for post seafaring career.

1.6. Key Assumptions and Limitations.

The assumptions have been informed by the pattern of requirements for onshore maritime jobs that are largely based on first degree requirements. The following are important in approach to the remedial action.

1.6.1. Key Assumptions.

The following key assumptions are made and addressed:

- i. It is evident that academic qualification plays an important role in onshore maritime qualification criteria. This is affected by the lack of harmonisation of shipboard competencies to the normative structure of academic training
- ii. The gap in harmonisation is as a result of on existent programme specification for maritime training courses.

⁶ This is based on the Maritime Safety Committee (MSC) Circular as titled ‘Promulgation of information related to reports of independent evaluation submitted by Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, confirmed by the Maritime Safety Committee to have communicated information which demonstrates that Parties are giving full and complete effect to the relevant provisions of the Convention

- iii. Lack of holistic approach to MET, thereby lack of clarity in career progression beyond shipboard operations.

1.6.2. Scope and Limitations

A number of factors have an impact on the scope and places limitations in the design and methodology of the final dissertation.

1.6.2.1. Scope

Mombasa is the maritime city in Kenya and hence the research shall be primarily in Mombasa with Nairobi as the second geographical location as the majority of relevant regulatory organisations are domicile in the city. Data collection shall be limited to structured questionnaires and interviews with key individuals in the different institutions and governmental bodies. The research is specifically approached through deskilling as a result of changing skills-set and environment.

1.6.2.2. Limitations

Institutional bureaucracy is expected especially from government organisations. The limited time shall also affect the desired depth of the research and the extent of the acquisition of data. Some of the sources of data shall also have applicable copyright and higher levels of confidentiality.

1.7. Dissertation Outline

To achieve the intended results for this research, the following shall be the outline adopted to enhance clarity and presentation.

The first chapter shall introduce the dissertation, the research questions to achieve its aims and objectives, the methodology to seek answers to the research questions in addition to the scope and limitations of the research.

The second chapter opens the debate of seafarer mobility to shore jobs while investigating the specific case of Kenya. This is achieved through a meta-analysis of the EU study on its maritime cluster and seafarer mobility in addition to comparative

analysis of the Indo-Asian maritime cluster to map the patterns of mobility and skills required for maritime jobs ashore.

Chapter three shall present a critique of the current status of MET in Kenya through the technical and academic career path while highlighting the major challenges under the current regulatory framework in Kenya.

Chapter four shall define the methodology of data collection.

Chapter five shall present and discuss the data collected.

The proposed action plan to address the deskilling shall be the essence of chapter six while chapter seven shall conclude the dissertation.

Chapter 2 –Mobility of Seafarers in the Maritime Industry

2.1. Introduction

The chapter analyses the trends in seafarer mobility and employment ashore. This is analysed through a meta-analysis of existing literature in form of reports and research that seek to define maritime clusters and skills within such clusters. This includes the analysis of the Indo-Asian maritime cluster and the EU maritime cluster as presented through ‘The Mapping of Career Paths in the Maritime Industries’, a research by the Southampton Solent University. The countries have been selected through the scope of well-defined maritime clusters in Europe and the maritime labour source of the Indo-Asia region. The chapter also notes the definition of the future seafarer through the Global Maritime Professional research by the International Association of Maritime Universities (IAMU) and the MarTID report. The conclusions are vital in drawing results to benchmark the Kenyan scenario in:

- a. defining the skills relevant to the Kenyan seafarers in qualifying for shore-based maritime jobs.
- b. establishing a framework for continuing competence and professional development for seafarers.

2.2. Seafarer Mobility Debate

The common perception has been that seafaring is a high paying job (Fei & Lu, 2015; Baylon & Santos, 2011). Thus relative to the high pay, the question of high attrition needs to be answered. Gardner and Pettit (1998) conclude that it is only a small percentage of seafarers that spends their entire productive life in seafaring. The high mobility from the seafaring jobs is characterised by social determinants such as family (Yuen, Loh, Zhou, & Wong, 2018). However, the maritime industry ashore does not benefit from such attrition due to job descriptions and specifications that do not adequately translate seafarers’ competencies as outlined by the STCW Convention and Code hence a perceived lack of qualifications for shore-based jobs in the maritime industry.

From a similar research at the global level, the Global Maritime Professional (GMP) research has defined the future seafarer as:

“An individual who is a professional in the maritime industry and who is equipped with all the relevant technical competences relevant to their specific operational role in the industry and who – in addition to their technical competency – exhibits a high level of professionalism and ethical behaviour, human relations skills, emotional intelligence and multicultural awareness and sensitivity. Such an individual exhibits significant leadership skills and is able to optimally work with teams and also take personal initiative. They additionally display a high sense of environmental awareness and an excellent grasp of contemporary issues affecting the maritime industry”

Data for seafarer mobility is largely unavailable in Kenya.

2.3. Seafarer Mobility Analysis

Seafarer mobility is a major debate. Research indicate that a number of factors determine a seafarer’s mobility to shore side jobs. These include the decision of a seafarer indirectly in deciding whether to continue with the seagoing career or resign from seafaring (Gardner, Marlow, Naim, Nair, & Pettit, 2007), hence, transferable skills are key to the mobility of seafarers. Thus relating to Kenya, the understanding of such skills is a major challenge to transfer of seafarers to shore side jobs.

The meta-analysis presented in the subsequent sub-chapters is aimed at drawing experiences and conclusion to the seafarer mobility discourse. These research shows clearly defined maritime clusters in these countries. These experiences are drawn through an in-depth and multifaceted investigation for the description of the phenomenon (Feagin, Orum, & Sjoberg, 1991, p. 2; Hancock & Algozzine, 2016) and development of the theory (Seawright & Gerring, 2008; Hancock & Algozzine, 2016) around seafarers’ employability and transition to shore side jobs. This is adopted as a preliminary tool to explore similar and partly related experiences. (Rowley, 2002) and as such is only complementary to the methodology (Eisenhardt, 1989). Through the

review of the trends from the analysis, answers addressing the employability of seafarers ashore is sought. These include the question on skills requirements for job qualifications ashore, whether the current training programmes are cognisant of such skills requirement in addition to the interaction of employers and training institutions as key stakeholders.

2.3.1. The Europe Union Research findings

A research project undertaken by the Southampton Solent University for the European Community Shipowners' Associations (ECSA) and the European Transport Workers Federation (ETF) with the support of the European Commission established a perceived disadvantage to seafarers including:

- i. The perception that seafarer education and training is preoccupied in operational and technical competence,
- ii. The seafarer lacking 'soft, management and administrative skills' due to less focus on management issues '*including commercial and business management*',
- iii. That seafarers lack extended basic education and as such unfit for shore jobs.

From the research, through a mapping exercise, we can be able to identify skills from the maritime sectors represented by the selected countries⁷. The UK has had by comparison, extensive researches to seafarer, seafaring, the maritime industry and seafarer training in research targeting welfare, policy implications, economic implications among other contemporary issues. This include Gardner & Pettit, 1998; Gardner & Pettit, 1999; Pettit et al, 2005; Barnett et al, 2006a; Barnett, Gatfield, Overgaard, Pekcan, & Graveson, 2006b and the research by Southampton Solent University (SSU) in 2005 which highlights the different sectors that are recipient to maritime professionals and the clusters at the European Union (EU) Level. From the research by SSU (2005), Deloitte (2011) and Oxford Economics (2017), the distinction of management positions at sea and ashore is highlighted. It is clear that senior

⁷ For the purposes of this dissertation, the countries analysed was selected on stratified representation sample with particular interest to Denmark which trains 'dual purpose officers'.

management positions ashore are not pegged on technical skills and expertise but on commercial and financial background.

The research also showed a technical qualification framework augmented by an academic framework where the trainees start at nautical schools and advancing to university education. This was exhibited by the select countries with option for university entry. This shows a clear recognition of Vocational, Technical and Academic streams for training of seafarers. Technical specialisation of each country can also be attributed directly to the nature of its maritime clusters. This thus defines the niche skills in each country for maritime skills ashore. It is therefore important to map these skills and analyse them to understand the requirements for seafarers to transition from seagoing careers to jobs ashore. The Table 1 shows the mapped thematic areas within the EU maritime cluster.

Table 1: Summary of Thematic Areas and Skill Set Identified Through the ECSCA Research by Southampton Solent University (2005)

Ship management	Marine Insurance
Cargo Operations / Logistics	Marine Equipment Maintenance and Service
Port and Terminal Operations	Marine Cruise Tourism, Watersports.
Public and Maritime Administration	Ship Agency and Brokerage
Marine equipment manufacture	Classification Society Operations
Marine Equipment Sales	Power Supply Services
Civil Engineering	Utility Services (Salvage etc.)
MET	Reefer Services
Law	Technical Consultancy

Economics and Finance	Clearing and Forwarding
Port Pilotage	Fisheries
VTs	Crewing and recruitment
Surveying	Offshore industry service
Ship, Yacht building / Repair	Pollution Control and Management

This is then used to draw relevant generic skills to accomplish the job designations within a thematic area.

2.3.2. The Indo-Asia Region

The Indo-Asia⁸ region supplies the largest percentage of seafarers at both rating and officer level to the global maritime labour market. Accessed literature scarcely informs on the seafarer mobility to shore jobs in definitive research results but rather addresses the reasons for mobility of seafarers to jobs ashore. However, deducing from the state of the maritime industry and cluster population, a clearer picture in mobility of seafarers to shore jobs is illustrated.

The Indian maritime industry cluster is characterised by shipping agents, crewing agents, maritime lawyers, marine insurers, port operations, ship building, ship recycling and training services (Kumar, 2015; Valentine, Benamara, & Hoffmann, 2013).

Malaysia on the other hand has a broadly classified maritime cluster of Shipping, Ship Industry in addition to Ports and Terminals which is then serviced by both the technical and service sectors (Figure 1) (Saharuddin, 2001; Othman, Bruce, & Saharuddin, 2011; Othman, Jeevan, & Rizal, 2016).

⁸ For the purposes of the dissertation the intended region shall be represented by India, Philippines and Malaysia.

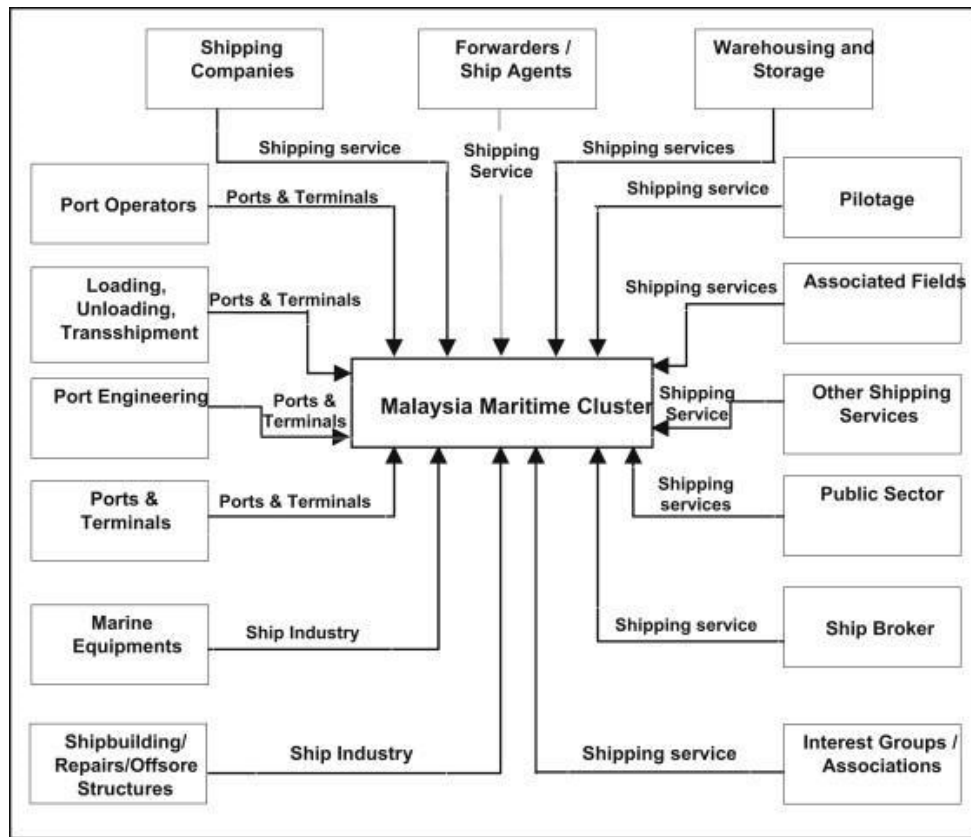


Figure 1: Malaysia Maritime Industry Cluster

Source: (Othman et al., 2011)

The Philippines, which is among the leading suppliers of global maritime labour illustrates a densely populated maritime service industry (Aragon & Garalde, 2017; Valentine, Benamara, & Hoffmann, 2013). Ship building, ship management and manning sectors represent a large component of the cluster. Loosely connected research and academic literature such as (Orence & Laguador, 2013; Thomas, Sampson, & Zhao, 2010) provide an insight to seafarer mobility and transition to shore jobs from seafaring jobs.

From the Indo-Asia region, we find that a considerable number of MET institutions train officers at the undergraduate level which equips the officers with other non-technical skills. However, the strike of balance between the technical and non-technical skills is a critical question that needs not only an answer but also thought-provoking hypothesis to establish concerted effort in MET.

2.4. The Seafarer De-Skilling Debate

Deskilling is a debate that is affecting all industries. Much of the deskilling debate has revolved around technology and the threat of technology to seafarers' physical existence on-board a ship. This has manifested through many surveys and researches that have looked at the deskilling factor through the human and technology interaction as described in the following. Nguyen (2018) argues that although seafarers acknowledge the take-over of roles by technology, it is only unmanned ships that are perceived as the real threat as shown (Figure 2).

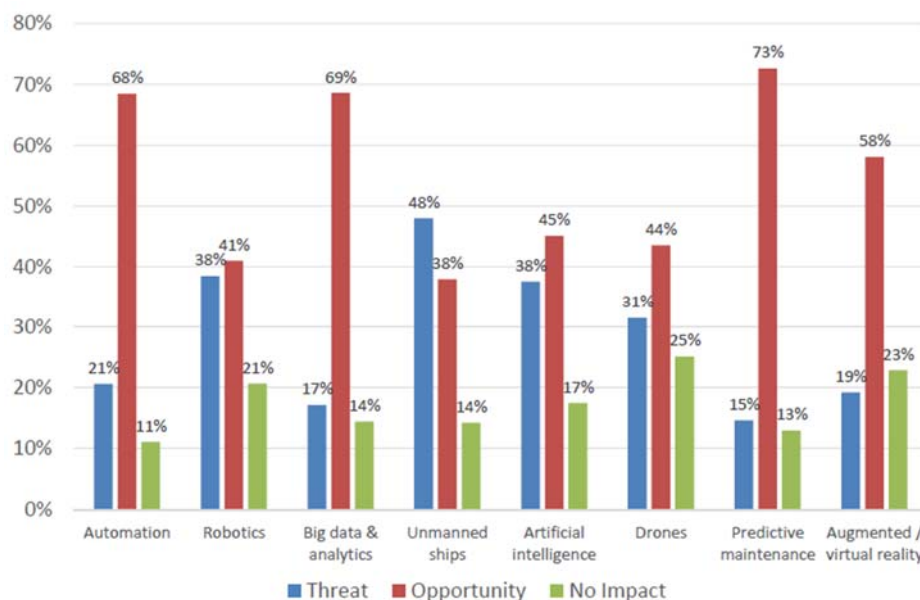


Figure 2: Crew Connectivity 2018 Survey Results by KNECT365

Source: (Nguyen, 2018)

This is supported by numerous definitions for deskilling. Such definitions include ‘*to reduce the amount of skill that someone needs to do a particular job: New technology has been used to deskill many jobs*’ (Cambridge University Press, 2019). However, while looking at the skills and matching environment within which the skilled individual is expected to work, we find that a process of deskilling manifests itself by virtue of change of prevailing conditions including job descriptions and specifications, general perceived entry qualifications for the job designation, mismatched skills for

the job and changed working environment. (Ray, 1989) argues that conceptual deskilling does arise with inclusion of social parameters to realise social skills as with case of managers. This strongly supports the objectives (1.3.2: iii) and is relevant to the research questions (1.4: i, iii and iv). It thus reinforces the need to clearly define reference standards and development of sustainable curricula to equip the seafarer with skills needed both on-board and within the maritime industry ashore.

2.4.1. Maritime Skills Base Ashore

The maritime skills base in many countries has by large been void of the seafarer skills and experience. This is facilitated by the common perception that seafaring is not ‘fit for purpose’ ashore. Studies in the United Kingdom established that key shore-side jobs in the maritime industry required the skill and expertise of seafarers (Gardner & Pettit, 1999). This is by far non-existence due to high wastage rates, mismatch and misinterpretation of skills, unattractiveness and policy implications (Gardner, Marlow, Naim, Nair, & Pettit, 2007). Therefore, total wastage of the high skills and qualification greatly affect the maritime industry ashore (Pettit, Gardner, Marlow, Naim, & Nair, 2005). Gardner and Pettit (1999) argue that much of the needed skills to fill shore-side jobs are required by employers in technical capacities and related maritime jobs that require seafaring experience such as marine insurance. The Kenyan scenario constrains the seafarer in only the technical services which have also seen competition especially marine survey from loosely trained engineers and fire safety trained personnel who have otherwise engage in inspections on-board ships. This has been partly influenced by consistent non-recognition of seafarer skills beyond the ship environment. As a result, there has been presence shore in jobs within the marine operations department of the KPA, the maritime safety department of KMA and in the ship survey business.

2.4.2. Maritime Human Resource Practices and Shore-based Employment

It is of best practise that Human Resource practises manage the expectations of the employees and the employers effectively. While this seems like an ideal scenario Cahoon et al. (2014) argue that it is not a perception enjoyed by seafarers especially at

during their shipboard careers. Neither are the expectations met in shore-based jobs. Pettit et al. (2005) point out that both the maritime-related and non-maritime industry ashore require the expertise of seafarers. however, this is challenged by the insufficient pool of qualified seafarers⁹. While the UK case explores the changing patterns and the decline in the availability of seafarers to fill the positions, the Kenyan scenario is different from the said pattern. The Kenyan scenario suggests availability of both shore side jobs and seafarers to fill the positions (Annex IV – Advertisement for Vacancies Kenya Ferry), (Annex V – Advertisement Maritime (Ministry-Deputy Director)), (Annex VI – Advertisement Kenya Ports Authority (MD)), (Annex V – Advertisement for Vacancies Maritime (Ministry-Shipping and Maritime Officer)) and (Annex I – Advertisement for Director General, KMA.), as listed.

Maritime shore-based sector is made up of business and commerce based, education and training, technical and other sectors that provide vital services to the maritime industry such as the legal profession. Different organisational models and structures give rise to different characteristics of the sectors and hence different human resource characteristics. The main focus of the shore-based employment characteristics in this dissertation looks into the seafarer shore-based employment. It is notable that the industry has largely been identified through the ‘maritime clusters’. (Langen, 2002) defines a cluster is defined as *‘a population of geographically concentrated and mutually related business units, associations and public (private) organizations centred around a distinctive economic specialization.’* Viederyte (2013) defines a maritime cluster as a functional entity within the maritime industry that interact with each other either directly or indirectly. Langen (2002) however, argues that, a cluster is a population, not an entity. This includes sectors such as shipping, marine industries, port operations (Viederyte, 2013), technology industries, service industries and public institutions mandated with maritime (Langen, 2002; Chang, 2011; Doloreux &

⁹ A report by Gardner BM, Pettit S J. Titled *‘The UK economy’s requirements for people with experience of working at sea’* in 1996 looked at the specific issue of the fundamental changes that was experienced in both the structure of the shipping industry in the UK and its effect in addition to the changing social expectations of new generations of seafarers that was seen through the decline in employable seafarers to fill the shore side vacancies.

Shearmur, 2009). In reality, a maritime cluster is the different functional entities that populate an existing space in the maritime industry and interacts within and outside the maritime sector. Where these clusters have been well organised, it has benefited seafarers who take up shore side jobs after years of service at sea (Ali, 2009). Thus the benefit of transfer of knowledge, skills and experience (Gardner & Pettit, 1999; Gardner, Marlow, Naim, Nair, & Pettit, 2007; Barnett, Gatfield, Overgaard, Pekcan, & Graveson, 2006b). Barnett et al (2006b) argue that value that attract shore side employers include the seafarer's knowledge of maritime operations including ships, shipping, systems and maritime processes which gives credibility to their expertise in maritime matters in addition to self-management abilities which are highly desired.

2.5. Summary

The discourse and meta-analysis of seafarer retention in the maritime industry aims at looking critically into the current situation globally through a stratified study on the selected European countries. The literature further reveals a vibrant maritime industry in the Indo-Asia region. An analysis of the maritime cluster from the meta-analysis shows the following patterns (Figure 3).

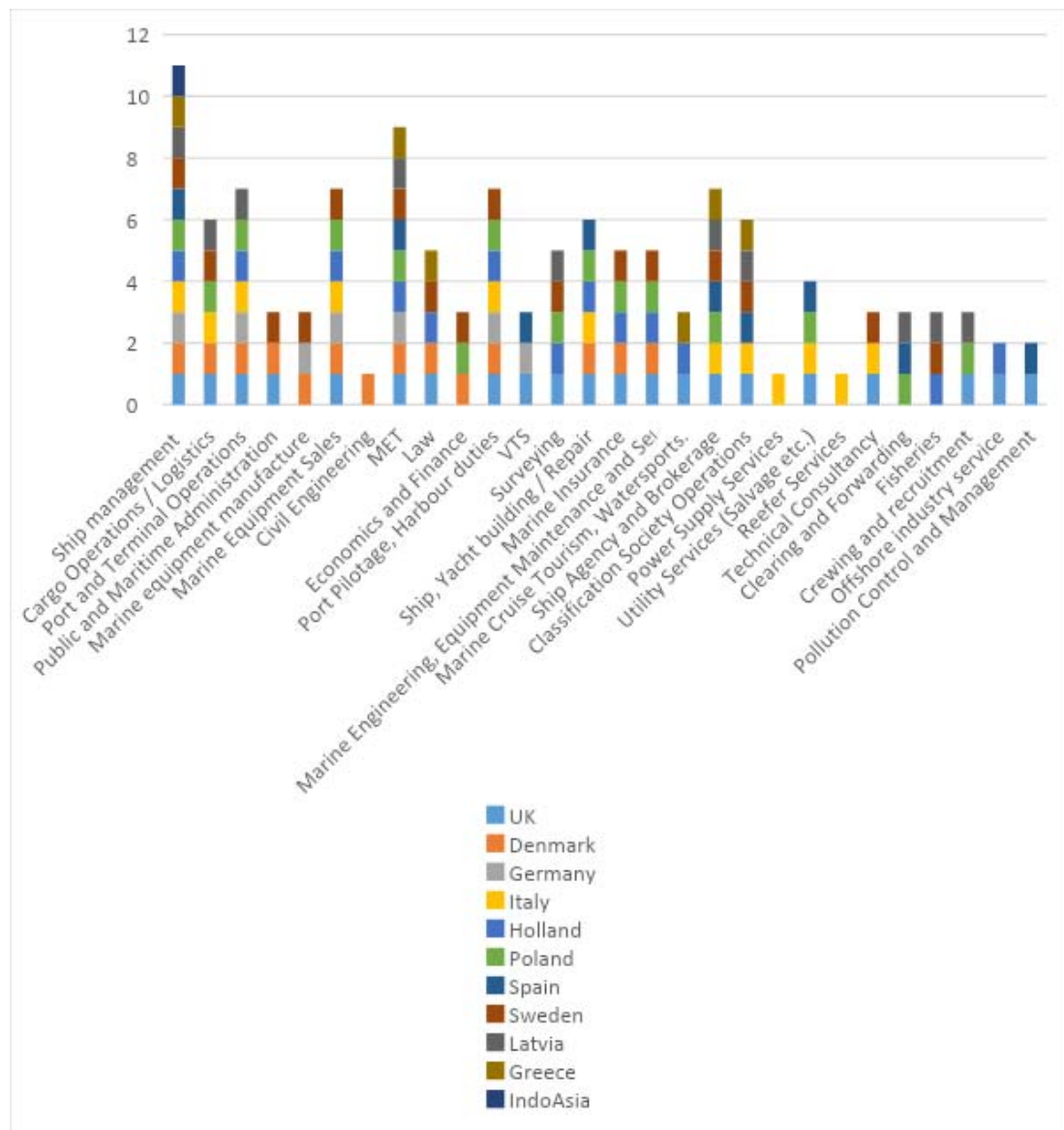


Figure 3: Maritime Industry Cluster by Country

Source: Adapted from (SSU, 2005)

The relevance of the two strata is to learn from both the developed nations and the developing nations in addition to adoption of best suited and appropriate best practises. From the analysis we find that depending on whether the country is a net manufacture or consumer, the industry cluster varies as shown above (Figure 3). Thus using (= 4), we find that the dominant clusters as below:

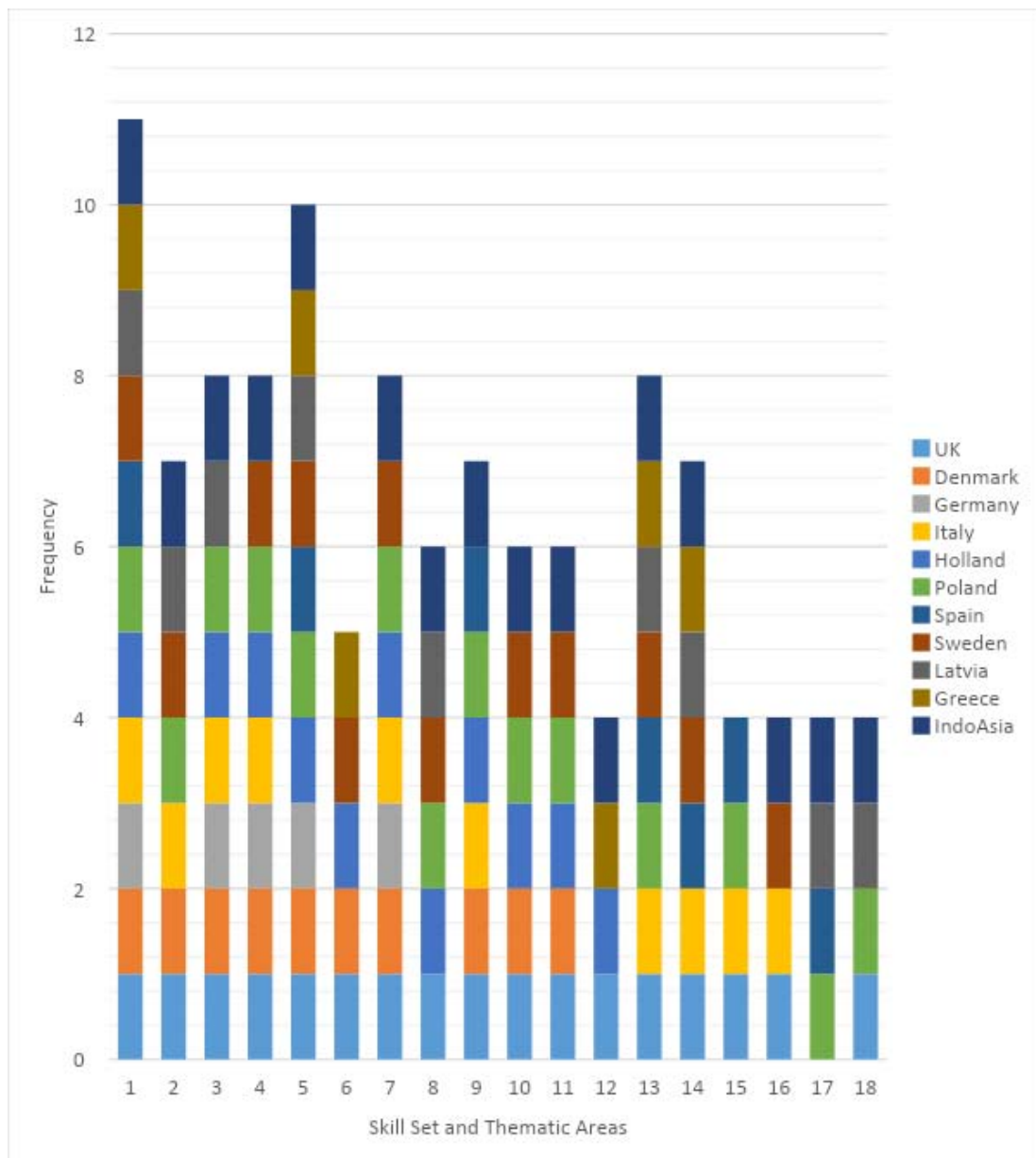


Figure 4: Dominant Maritime Clusters

Source: Analysis by Author

The analysis further identifies the technical professions ashore including ship management, cargo operations/logistics, port and terminal operations, marine equipment sales, met, port pilotage, ship / yacht building and repair, ship agency and brokerage, and classification society operations (Figure 3) ;(Figure 4). Through reference from programme specifications for related to the table of thematic areas

(Table 1), we find the following outlined learning outcomes that define major skill set as shown in the (Table 2) below.

Table 2: Skills Mapping for Learning Outcomes:

Cluster	Dominant Skills¹⁰
Ship Management	Communication Skills, Both Verbal and Written. Analytical, Statistical, Math and Computer Skills QHSSE Knowledge Human Resource Knowledge Contract Management Business Development Supply Chain Operations and Processes Project Management and Lean Operations Risk Assessment and Management Strategic Leadership and Management Problem-solving and decision-making skills Fleet management skills Financial understanding and skills
Cargo Operations / Logistics	Communication Skills, Both Verbal and Written. QHSSE Knowledge Maritime Operations and Freight Trading contract management Business Development Managing logistics, storage and warehousing Supply chain operations and processes

¹⁰ The skills have been identified through research into the prevailing qualification requirements for jobs leading to the positions. It is further enhanced through literature review in maritime business and commerce. These literatures include job descriptions, specifications and requirements for management positions in the specific sector. The qualification requirements are derived from the major players in the maritime industry including shipping lines and influential maritime corporates in the respective sectors. Although the list is not exhaustive, it attempts to highlight key and dominant skills that are otherwise do not relate to competences in the Tables of competences in the STCW Code.

	Project Management and Lean Operations Risk Assessment and Management Problem-solving and decision-making skills
Port and Terminal Operations	Communication skills, both verbal and written. QHSSE knowledge Project management and lean operations Risk assessment and management Problem-solving and decision-making skills Maritime knowledge
Marine equipment manufacture	Communication skills, both verbal and written. Business Development Lean Manufacturing methodology Project Management and Lean Operations Risk Assessment and Management Problem-solving and decision-making skills
Marine Equipment Sales	Contract management Business development Lean manufacturing methodology Project management and lean operations Problem-solving and decision-making skills
MET, R&D	Communication Skills, Both Verbal and Written. Management and consultative skills. QHSSE Knowledge Problem-solving and decision-making skills policy research and analysis The development of research projects, submission of project proposals, management of projects
Maritime and Admiralty Law	Communication skills, both verbal and written. Contract management Problem-solving and decision-making skills

	Qualification as a lawyer Legal research and analysis Policy research and analysis
Business, Economics and Finance	Communication skills, both verbal and written. Contract management Business development Project management and lean operations Risk assessment and management Problem-solving and decision-making skills
Port Pilotage	Communication Skills, Both Verbal and Written. Risk Assessment and Management Management and Consultative Skills Maritime search and rescue operations. QHSSE Knowledge Port Operations & Fleet Management Customer and Public Relations
Surveying, Inspections	communication skills, both verbal and written. Risk Assessment and Management Problem-solving and decision-making skills
Ship, Yacht building / Repair	Communication Skills, Both Verbal and Written. QHSSE Knowledge Business Development Contract management Project Management and Lean Operations Risk Assessment and Management Problem-solving and decision-making skills
Marine Insurance	Communication skills, both verbal and written. Problem-solving and decision-making skills Contract management Business development

Marine Equipment Maintenance and Service	Communication skills, both verbal and written. Lean manufacturing methodology Project management and lean operations Risk assessment and management Problem-solving and decision-making skills
Ship Agency, Broking, Chartering	Communication skills, both verbal and written. Analytical, statistical, math and computer skills Contract management Business development Project management and lean operations Risk assessment and management Problem-solving and decision-making skills
Classification Society Operations	Communication skills, both verbal and written. QHSSE knowledge Analytical, statistical, math and computer skills Risk assessment and management Problem-solving and decision-making skills
Utility Services (Salvage etc.)	Communication skills, both verbal and written. Contract management Analytical and statistical skills Risk assessment and management Problem-solving and decision-making skills
Clearing and Forwarding	Communication skills, both verbal and written. Analytical, statistical, math and computer skills Supply Chain, Logistics, Information Systems Maritime Operations and Freight Trading Problem-solving and decision-making skills

The experience of dealing with large plants is highly recognised by the industry ashore and as such engineering officers have a comparative advantage over deck officers.

This, therefore, does not require additional education for the engineers, thus a wider choice including public utility industries, power and nuclear plants and large plant industries (SSU, 2005).

It is therefore clear that the maritime clusters provide an opportunity for jobs ashore. While the technical cluster readily absorbs the seafarers, the business and commerce cluster does not seem to attract seafarers except with further education. This is driven by the fact that seniority in the shore-based jobs are defined through commercial and financial expertise. This, therefore, stresses the need for appropriate financial and commercial background for seafarers in addition to human relation skills. These ‘soft skills’ has since been recognised by 2010 amendments with leadership skills as a key competence.

Hence, referring to the mapped skills from the clusters (Table 2), we can be able to develop the learning outcomes. The Figure 5 below illustrates the dominant skills.



Figure 5: Dominant Skills from the Case Study

From the data, we find that decision making, problem solving, communication skills are dominant in addition to risk assessment and management, contract management, lean operations and project management (see Figure 6). Such skills are highly desired in senior management positions hence, the dominance. Quality, Health, Safety, Security and Environment (QHSSE) has been identified as key to the training through the questionnaires administered.

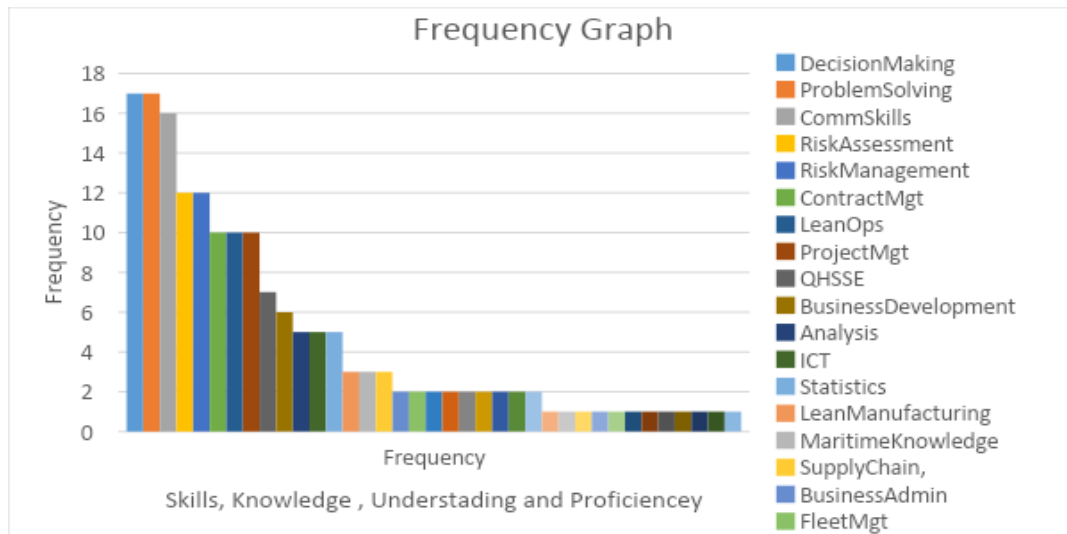


Figure 6: Skills Frequency Analysis

The analysis further articulates the relation and linkage of the following key skills identified as shown below (Figure 7). This enhances the necessity for a holistic approach to curriculum design, development and implementation.

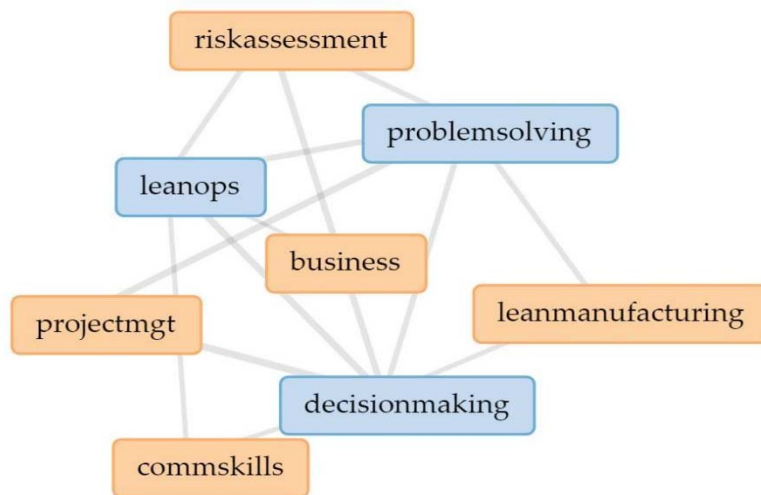


Figure 7: Skills - KUP Correlations and Linkages

From the research data, communication skills are key to the different career paths, in both oral and written competence. Skills such as communication skills have been

identified in the literature as ‘soft skills’ (Barsan, Surugiu, & Dragomir, 2012)¹¹. It does not only negate the concept of ‘soft skills’ but introduces a paradigm shift to recognise such skills as ‘essential skills’.

For the future seafarer, Kumar (2015) argues that ‘*the contemporary officers must be tech-savvy and multi-skilled, capable of making rapid decisions and leading others in a fast-paced operating environment*’. Therefore, relating to the maritime clusters, we find that industry revolution 4.0 plays a role in defining the anticipated skills for a seafarer to enhance mobility to the contemporary maritime industry clusters.

While the communication skills are important, multilingual communication skills in view of the global maritime industry is relevant to the training of a seafarer (Kumar, 2015) where resources are available. Production knowledge, management skills and research skills have formed substantive relations to the core specialisations of maritime operations especially with cargo operations, marine engineering (Kumar, 2015) and navigation.

We therefore find that to address the challenges of transition of Kenyan seafarers post seagoing careers, the following are important:

- 1) understanding the common practise in human resource management in Kenya
- 2) defining clear maritime clusters
- 3) defining future skills for the seafarer not only as a shipboard officer but a versatile maritime professional.
- 4) developing academic and training programmes not only for shipboard competencies but with relevance to shore-based jobs

This analysis is further correlated to the data from chapter four and the analysis in chapter five to map the skills needed for the seafarer to realise the programme specifications and reference standards in chapter six.

¹¹ Other literature includes (Ting, Marzuki, Chuah, Misieng, & Jerome, 2017). This is not unique to Seafaring and Maritime. Other disciplines have been attracted to the debate on the importance of communication skills (Agarwal & Chintrashi, 2009)

Chapter 3: MET in Kenya: Regulatory Framework and Complementary Regulations

3.1. Introduction

The chapter presents a review and analysis of Kenya's educational framework. It outlines the system from the early educational years to post-secondary training. The chapter aims to achieve the following:

- a. describing the Kenya National Qualification framework (KQNF)
- b. elaborate the history and development of Maritime Education and Training (MET) in Kenya.

The Kenya educational framework is at the first instance defined by the Basic Education Act 2013 in Part V (System and Structure Of Education)¹². Other acts and regulations including Teachers Service Commission (TSC) Act¹³, Kenya National Examination Council (KNEC) Act¹⁴, Adult Education Act and Universities Act posed a challenge since they are not harmonised (Transparency International Kenya (TI-Ke), 2010). This challenge therefore saw the need for a new framework to identify roles of all the concerned actors and harmonise the legal framework (Ministry of Education, Science Technology (MoEST) Kenya, 2005). The education system has been designed as eight years of primary education with 4 years of secondary education and a further 4 years' post-secondary education.

In 2018, the government has changed its education system to 'competency based' system. The system is a '2-6-6-3' system¹⁵, which is phased as two years of pre-school, six years of primary school, six years of high school, and three years of tertiary education. The shift among other factors is to realise the objectives of the vision 2030

¹² This is the Act No. 14 of 2013. It repealed the Education Act (Cap 211). It has been amended by The Basic Education (Amendment) Act, 2017. However, the post-secondary education is elaborately regulated by the Technical and Vocational Education and Training Act, 2013 and Universities Act, 2012.

¹³ This the Act No: No. 20 of 2012. It regulates the teaching profession. This is supported by subsidiary legislations that address particular items in the Act.

¹⁴ This is the Act No. 29 of 2012. It provides the necessary legal framework for the establishment, powers and functions of the Kenya National Examinations Council in addition to the conduct of examinations.

¹⁵ The system is currently under pilot scheme. It is based on competency based learning and assessment.

and alignment to global standards¹⁶. The system's implementation despite uncertainty and anxiety (Ndonga, 2018; Oyango, 2018), public outcry (Wanzala, 2018c), vested interests and contrary opinion by publishers (Kahongeh, 2017; Mutua, 2018; Moran Publishers, 2018), other interests by unions and lobby groups (The Daily Nation, 2018; Kenya News Agency, 2019), the political urge to enforce the system (Munene, 2018; Wanzala, 2018d), apparent unpreparedness (Abagi, 2018c) and conflicting directives (Owino, 2018; Wanzala, 2018d), seem to gain ground. It is therefore of the essence that the system is considered during the development of any MET programme as shall be proposed by later in the dissertation.

3.2. The Kenya National Qualifications Framework

The Kenya National Qualifications Framework (KNQF) (Figure 8), has been brought to life through the enactment of the Kenya National Qualifications Framework (KNQF) act and KNQF Regulations, which led to the establishment of the Kenya National Qualifications Authority (KNQA). The figure below shows the framework for progression under the act.

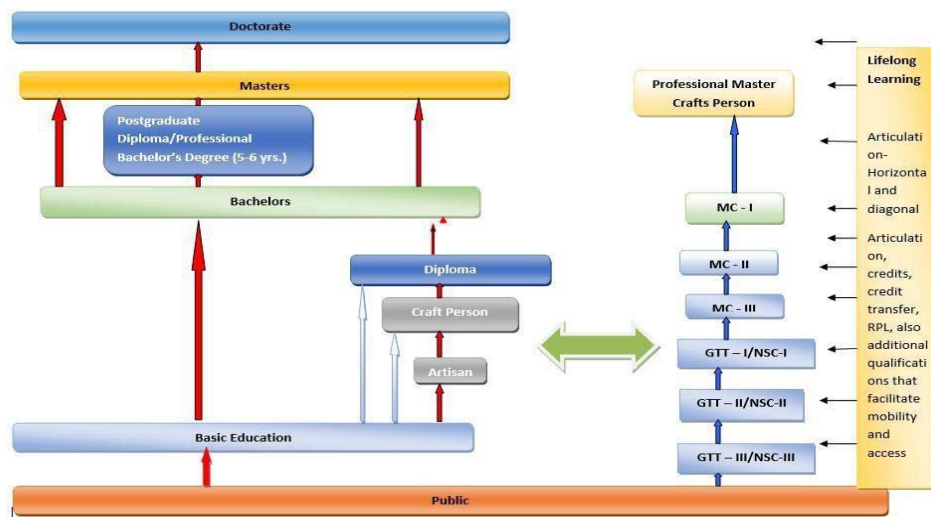


Figure 8: Progression pathways formulated under the KNQF

Source: KNQA (www.knqa.go.ke)

¹⁶ The Vision 2030 is a government initiative that “aims to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment”.

The framework provides for levels that are enumerated from levels 1(One) -10 (Ten) as shown by (Figure 9). The progression framework of Kenya lays a broad framework subject to interpretations. This is particularly of interest taking the fact that MET is a newly introduced domain within the educational and training domain in Kenya.

KNQF Level	General and Further Education and Training Sub-Framework			Notional hours (minimum)
10	Doctorate Degree			3600 after KNQA level 9
9	Master's degree			2400 after KNQA level 7
8	Post-Graduate Diploma	Professional Bachelor's Degree	Professional Master Craft Person	1200 after KNQA level 7 or 6000 after KNQA level 2
7	Bachelor's Degree		Master Crafts Person –I or Management Professional	4800 after KNQA 2 or 2400 after KNQA level 6
6			Master Crafts Person –II or Professional Diploma	2400 after level 2 or 1200 after KNQA level 5
5			Professional Certificate or Master Craft Person III	1200 after KNQA level 2 or 600 after level 4
4			National Skills Certificate –I GTT-I	600 after KNQA level 2 or 300 after level 3
3			National Skills Certificate -II / (GTT –II)	300 after KNQA level 2
2	Secondary Certificate		National Skills Certificate -III / Government Trade Test (GTT-III)	Primary Education (Level 1)
1	Primary Certificate		Basic Skills/Skills for Life	Birth Certificate

Figure 9: Kenya Qualifications Structure levels

Source: Kenya National Qualifications Authority

3.3. Maritime Education and Training Framework

The section below outlines the development of MET in Kenya pre and post ‘whitelist’ inclusion.

3.3.1. History of MET

Seafarer training had its roots in Kenya with the establishment of the Mombasa Institute of Muslim Education (MIOME) in 1951 (Technical University of Mombasa (TUM), 2019), the training went on a decline leading Kenyan seafarers to start and advance their training in neighbouring Tanzania. Officer training desirability shifted primarily to Arab Academy for Science, Technology and Maritime Transport (AASTMT) in Egypt and the United Kingdom with some seafarers training in South Africa.

Initially MIOME taught seafarer courses that were purely vocational and technical. The seafarers furthered their education primarily in the UK with most of the older generation of seafarers trained for the East African Railways and Harbours Corporation (EAR&H)¹⁷. With the disintegration of the East Africa Community (EAC), the establishment of Kenya National Shipping Line (KNSL) was widely discussed in the Kenyan Parliament (GoK, 1985,1987). However, it ran into headwinds later leading to its eventual collapse amid queries from the Parliament¹⁸ (GoK, 1993). While there was agitation at the national level, MET still took a backseat in government policies. As a result, the agenda to develop local solutions for KNSL was non-existent. This further prompted the country to send its cadets to the United Kingdom (UK) to study navigation and marine engineering. Self-sponsored seafarers have had the Daressalaam Maritime Institute (DMI) as its primary MTI.

3.3.2. MET Post 2010 Inclusion in The ‘White List’¹⁹

A number of training programmes are currently implemented in Kenya. In 2010 Jomo Kenyatta University of Agriculture and Technology (JKUAT) started training in Marine Engineering at the degree level in partnership with the Korea maritime academy to facilitate on-board training. The Kenya Maritime Authority (KMA) through the Kenya Institute of Curriculum Development (KICD) developed five syllabi for Artisan Seafarer Course (ASC) in addition to Craft Certificates and Diploma in Nautical Science and Marine Engineering. The programmes were developed in line with the TVET guidelines which provided for clear progression as shown in (Figure 10). The ASC has been designed as a general rating course incorporating TVET

¹⁷ The corporation was formed through the enactment of The East African Harbours Corporation Act 1967 And Regulated by The East African Harbours Regulations 1970

¹⁸ The Hansards give a clear picture of the discussions regarding the Kenyan National Shipping Line on the floor of the house. However, attempts to revive has been instituted with the President signing an agreement with the Mediterranean Shipping Company (MSC). The MoU has elicited mixed reactions from the maritime industry.

¹⁹ The STCW Regulation I/7 requires states are parties to the convention to communicate to the secretary general of the IMO their status in giving full effect to the STCW Convention and Code

requirements for a general artisan course for onward progression. The trainee then chooses progression as outlined by (Figure 10).

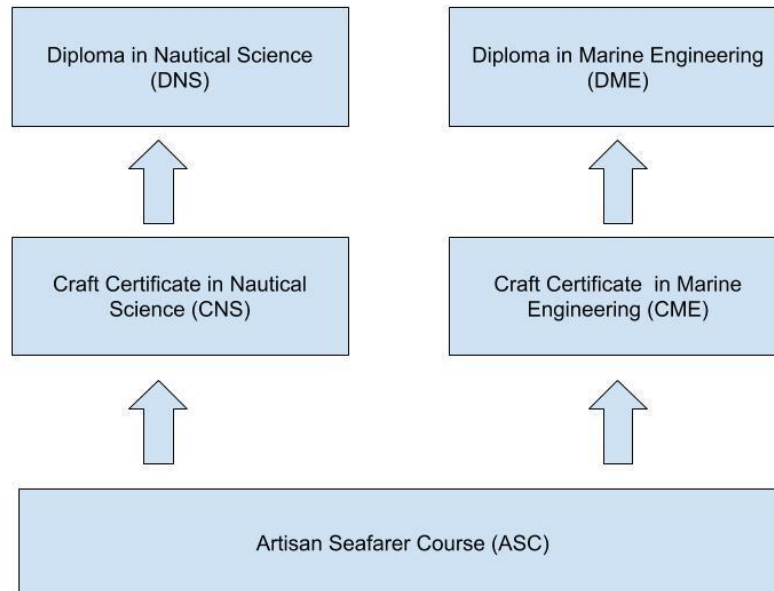


Figure 10: Academic Progression from Artisan Seafarer Course Entry to Diploma

Source: Author

For both diploma and craft certificates, completion of the Kenya Certificate of Secondary Education (KCSE) examinations administered by KNEC is required. diploma entry is a C Minus while craft certificate is D (Plain). The basic education certification KCPE, gives admission to the ASC. However, where a candidate for KCSE does not attain the D (Plain) Grade required for the Craft Certificate, the trainee is admitted to the ASC with exit points provided. The (Figure 11) below summaries the progression pathway.

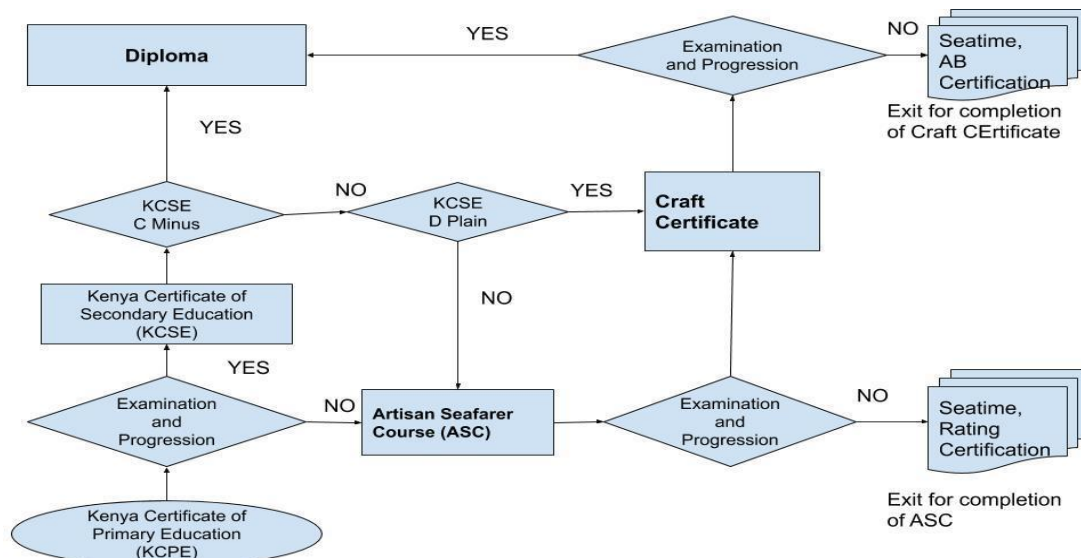


Figure 11: Progression Pathway from Primary (Basic) Education in MET

Source: Author

The transitions are distinct with exceptions for the first module for each succeeding level (see Figure 12). This pathway in the modular system also allows for exit and readmission.

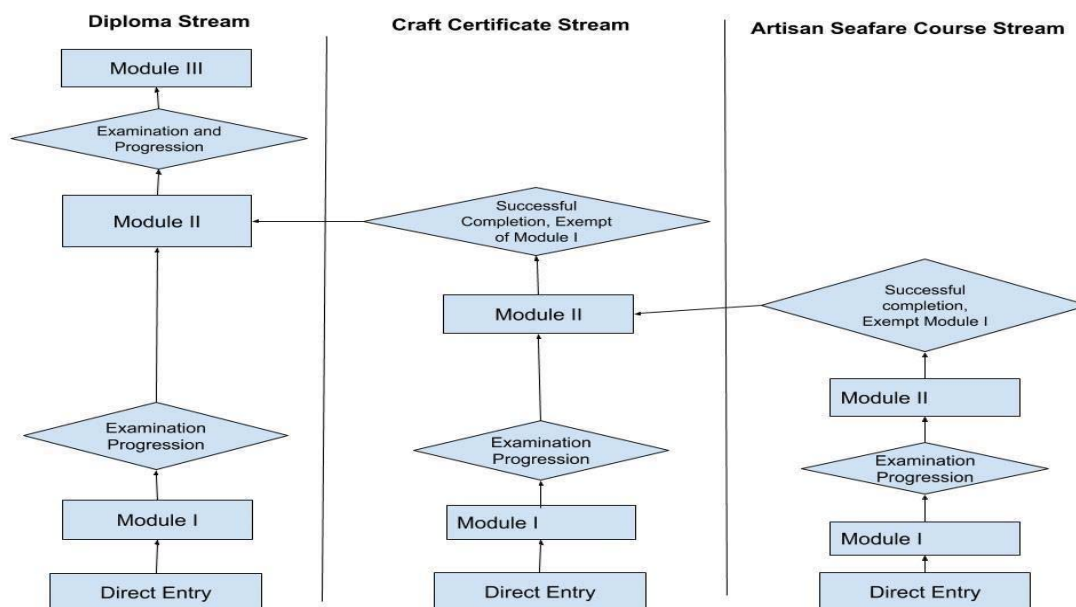


Figure 12: Summary of exemptions in progression

Source: Author

The diploma programme exit at Module I leads to rating certification and at module II for Able Seafarer certification after complying with the TC 2016.

3.3.3. Regulations Legislations for Administering MET

Education and training are governed through clearly laid out actions plans and control processes. For the purposes of addressing MET in Kenya, the author shall look at the Merchant Shipping Act²⁰, other Acts regulating activities within the maritime domain, subsidiary legislations addressing MET and other related statues that have an effect either indirectly on MET or the maritime environment and workplace.

3.4. Analysis of the MET framework within the Educational Framework

The MET system has largely been tailored to the existing educational and training framework. This process has highlighted numerous gaps and challenges which play a role in hindering compliance to relevant global and industry standards. A number of questions arises, the main question being ‘should a distinct framework be created for MET or do we need a corrigendum to the existing framework to define MET?

3.4.1. Conformity to the National Frameworks

The post-secondary educational framework is characterised by technical and vocational training (TVET)²¹ in addition to degree awarding education. TVET is regulated by the TVET Authority while University education is regulated by CUE. The MET system was put in place in 2008 with the first set of five (5) courses being developed by KICD under the direction of KMA, hence inclusion into the ‘whitelist’.

3.4.2. Gaps and Challenges

The juxtaposition of the MET framework into the existing framework present a number of challenges and gaps. Regulations to institute structures for implementing the curriculum was developed after piloting the training hence it created confusion in implementing. The Merchant shipping (Training and Certification) Regulation was

²⁰ The Act is the Act NO. 4 of 2009. Cap 389 of the laws of Kenya, Revised Edition 2012 [2009]. This repealed the Merchant Shipping Act (No.35 of 1967)

²¹ Refer to the TVET Act.

initially developed in 2012 but implementation in 2016 as the Merchant shipping (Training and Certification) Regulation 2016. The challenges faced by MET in Kenya include challenges in methodology in developing curricula, human resources capacity to implement the training and adequate resources (Mabuti, 2013; Kiplimo & Ikua, 2017; Mohammed, 2019). Funding of the material resources including workshops, laboratories and simulators are a challenge to the effective delivery of MET programs (Kiplimo & Ikua, 2017; Mohammed, 2019).

The methodological gaps manifest in the curriculum presage where the objectives of curriculum (Print, 1993) are developed. Manuel (2017) views that academic training is “*cognitive skills that are less reliant on hands-on task-oriented training*”. This poses a challenge as the implementation is more academic disregarding the nature of on-board operations. Thus with the wide opinion of stakeholders on the ‘optimal seafarer education’, it is important to realise that not all views are valid. This however affects the curricula where the objectives of the training are vaguely address hence a confusion on implementation arising from the philosophical nature of the curriculum developers (see Figure 13) as adapted by Manuel (2018) from Print (1993).

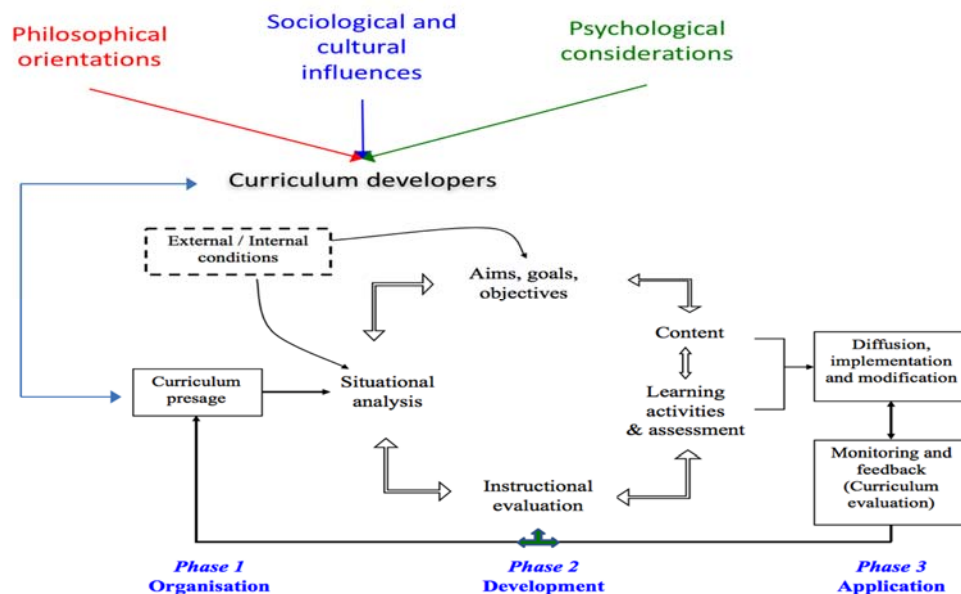


Figure 13: curriculum development map

Source: Manuel (2018)

3.4.3. Recourse to an Optimum Framework for Compliance to Global Standards

To optimise the benefits of a well-defined MET framework in Kenya a number of decisive actions have to be implemented:

1. Giving full effect to the STCW convention and code
2. Developing programme specifications for the programmes leading to award of certificates of competence. This is particularly critical to align the levels of training and enhance transition through a harmonised structure that is clear.
3. Review of the Merchant Shipping (Training and Certification) Regulations to address the challenges faced by MET in curriculum development and implementation.

Numerous challenges are faced by MET where officer training is packaged as a degree programme. Limited human resources to meet the requirements of CUE is one of the key challenges. An ideal syllabus should integrate the practical training periods to comply with the sea training phase for approved sea time²². This requires a training vessel which Kenya does not own and therefore the dependence on commercial ships. The current framework recognises the diploma as an academic programme where the diploma graduate is subject to normal degree entry requirements. Diploma graduates currently join degree courses at the second year. This highlights duplication of effort and redundancy. Both the degree and diploma programmes comply to the regulations II/1 for deck officers and regulation III/1 for engineering officers, hence the same competences at both levels for compliance. Therefore, an optimum framework to address the redundancies and duplicated efforts in complying with Regulation II/1 and III/1 is required. The Figure 14 below illustrates a proposed framework.

²² The Arab Academy for Science Technology and Maritime Transport for example is able to design their programmes in Nautical Science and Marine Engineering in such as structure owing to the presence of a training ship, the AIDA IV.

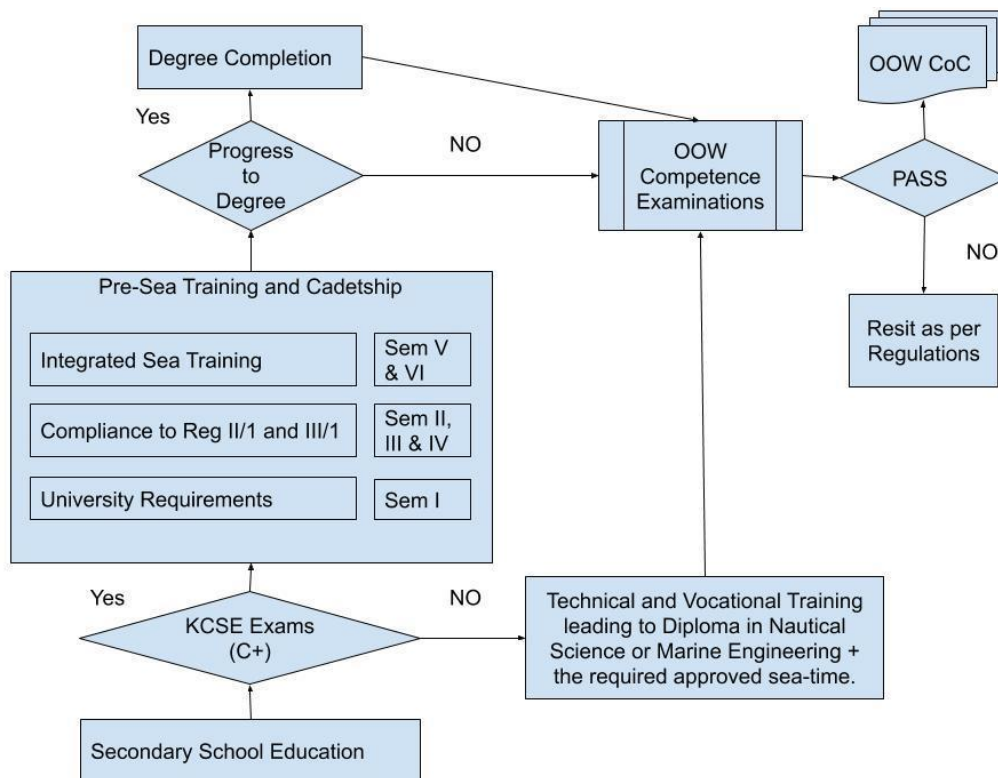


Figure 14: Proposed Optimum Framework for MET

Source: Author

The framework can be further accentuated to postgraduate studies in MET where appropriate academic resources are availed by institutions.

3.5. Summary of Challenges to MET

The MET sector is challenged by the traditional challenges facing educational institutions in Kenya. The challenges include the following (Sifuna, 1998; Mutula, 2002; Mukhwana, et al., 2016; McCowan, 2018):

3.5.1. Funding

Funding has been a major issue in university sustainability especially with public universities. This challenge is replicated in MET as it is moulded into the existing educational framework. Thus with development of OOW²³ training as degree

²³ This applies for both Nautical Science Training Deck Officers and Marine Engineering Training Engineering Officers at both Bachelor of Science and Bachelor of Technology degrees.

programmes it follows suit in general government capitation funding. This poses a change to quality training as the capitation is not specifically defined for MET but as general funding. The hospitality industry has addressed lack of funding with tourism levy²⁴ which is collected by hospitality establishment (Tourism Act, 2011). As to whether a levy should be imposed on maritime activities to support MET is debate and discourse that needs attention.

3.5.2. Resources

For an educational organisation to meet its objectives human and infrastructural resources are key not only to the immediate success but for sustainability. The primary business of an educational organisation is knowledge; therefore, knowledge management is key to realisation of learning.

3.5.3. Governance

Organisational structures are a major challenge. The framework and modalities for stakeholder participation is rather vague. The stakeholders have been hurriedly convened primarily through the curriculum development process with little or no follow-ups with stakeholders. Sifuna (1998) further adds that two major issues arise in institutional governance for universities in Kenya. These include planning and the management system of the university system as a whole. It in turn raises the question of relationships of universities with both the government and industry and in turn brings up the funding factor for research and academic projects. This correlates to the challenges of funding which is discussed in this chapter.

The Merchant Shipping (Training and Certification) Regulations 2016 (TC 2016) requires the presence of an individual responsible to the maritime administration in maintaining quality standards, known as the Responsible Person (RP). The TC 2016

²⁴ The Levy is enforced through the Tourism Fund and is 2% of the total sales. The Levy is aimed at financing hospitality training institutions and hospitality activities. The main beneficiaries at the moment are Kenya Tourism Board, Kenya Utalii College, Tourism Police Unit, Students in hospitality industry and M.I.C.E (Meetings, Incentives, Conferencing, Exhibitions) Secretariat. The Act repealed The Tourism Industry Licensing Act (Cap. 381), The Kenya Tourist Development Corporation Act (Cap. 382), The Hotel Accommodation Act (Cap.478) and The Hotels and Restaurants Act (Cap. 494)

defines the Responsible Person (RP)²⁵ as the Vice Chancellors in the case of the University. It is therefore important that the head of Universities consult effectively in the implementation of the MET Programmes. It also defines the RP as possibly a senior academic or management staff. This creates a challenge in decision making and especially with curriculum development especially through the philosophical orientation of the decisions taken (see).

3.5.4. Pedagogical Culture

Pedagogical culture is a major influence in developing educational programs. This culture includes social hierarchies, approaches to teaching, curriculum and assessment, guiding policies and institutional management practice. (Malechwanzi, Shen, & Mbeke, 2016) further adds that the pressures of globalisation have also had a major effect on the roles that government have been playing in education. With the liberalisation of education in Kenya to match globalisation, which has created a knowledge economy, education has shifted from developing adaptability of students to their societies to being a tool used for economic growth.

MET is built on a foundation of global and supranational national regulatory framework that sets the minimum requirements for qualifications of seafarers. This regulatory framework is the STCW Convention and Code (Mohammed, 2019). As mentioned earlier, the philosophical orientations of developers have presented challenges especially in developing engineering training. Marine engineering in Kenya is superimposed over mechanical engineering. It is vital that a different approach is developed to foster a sustainable paradigm in training competent seafarers (Manuel, 2017). This can be addressed through giving full effect to the Merchant Shipping (Training and Certification) Regulations in addition to relevant amendments to the regulation in appointment of the RP among others.

²⁵ The Regulations states: "responsible person" in relation to a training institution, means the owner or director, the principal or in the case of a university, the Vice-Chancellor or a senior member of the academic or management staff of the training institution;

The government needs to define MET in the blue economy strategy appropriately to enable sustainable growth and development. To achieve this, the skills, expertise and experience of seafarers is greatly required. Thus the necessity to define and align their training with contemporary Human Resource practises in addition to identification of newer skills that shall be required by seafarers. The dissertation in addition to the identification of skills also proposed through the programme specifications, a framework for continuing competence and professional development for maritime professionals.

Chapter 4 –Research Design and Methodology

4.1. Introduction

The research adopted descriptive and analytical research approaches. The dissertation reports on the existing phenomena where the researcher has no controls of the variables (Kothari, 2004). Thereafter to address the challenges an analytical approach is employed in both interpretation and remedy. Thus this '*ex post facto research*' methodology is explaining 'what is happening' (Kothari, 2004, pp. 2-3) within the maritime industry in relation to the seafarers post seagoing careers. Hence, with the facts realised from the different surveys and interviews, a critical evaluation is done to propose a framework for the course action (Kothari, 2004, p. 3).

The adoption of this methodology has been influenced by the research objectives and questions (Crabtree & Miller, 1999; Denzin & Lincoln, 2000) to address the research problem, within which domain does it exist, the population that is affected (Crabtree & Miller, 1999; Silverman, 2000), why has it happened in the existing form and manner and how the phenomenon is manifesting (Symon & Cassel, 1998). The methodology also uses a mixed research approach where questionnaires were designed for stratified populations with closed and open ended questions. Data collected as '*quantitative survey and qualitative open-ended interview data*' (Mertens, Bledsoe, Sullivan, & Wilson, 2010). This is aimed at collecting information directly from the maritime industry in a standardised format (Taylor-Powell & Hermann, 2000).

The research seeks to establish facts and situational truths from the investigation of the transitions challenges for seafarers and consequently an inductive approach (Nunan, 1992). This is important as the identification of the underpinning requirements to interpret the complexity of the particular maritime sector in addition to the complexity of systems and human resources culture of the shore side maritime environment is vital to establishing a policy framework to guide the training process that shall match the shore side skill set required (Ritchie & Spencer, 2002, pp. 305-330). To realise the action to remedy the phenomenon of deskilling as approached, methodological process

is modelled as adapted from Albert, Dodeler, & Guy's (2016) methodological process (Figure 12).

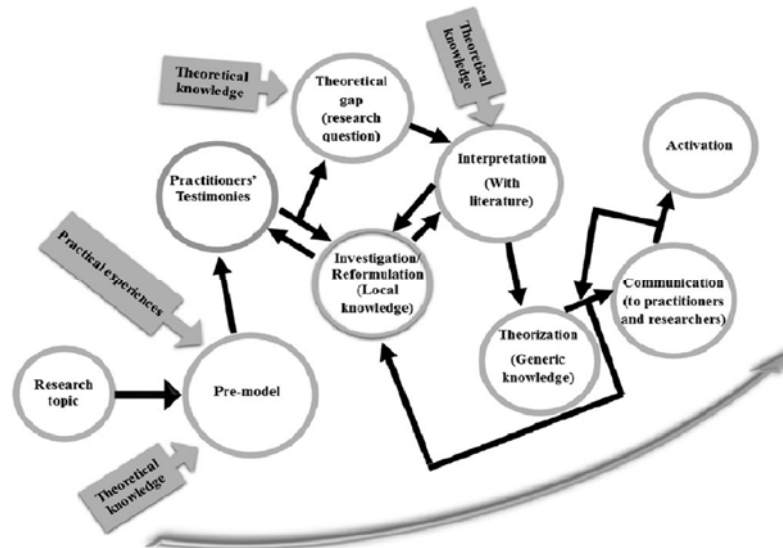


Figure 12: Adopted Methodological Modelling

The practical experience in the pre-model is supported by the current HR practises in the maritime industry. The investigations are done through an analysis of the skills to answer the research questions. The research questions as gaps are further investigated through practitioners' testimonies, interpreted through literature and a survey to give further clarity in answering the research questions.

4.2. Research Design and Variables

Research design is defined as the rationality and action plan that binds together the process and tools for data collection with the conclusions required to answer the research questions to ensure a coherent flow of logic (Rowley, 2002). The data collection framework is best suited to a descriptive and analytical design. The basic components of the investigation into the phenomena are:

1. Transition of seafarers to shore-side jobs
2. Education and training to enhance transition
3. Probing the adaptability and malleability of the acquired knowledge and experience.

The above components have been defined to investigate the phenomena to answer the research questions through valid and reliable data in addition to informed propositions from existing literature as proposed by (Rowley, 2002).

Well defined variables bring clarity to a research. The importance of such is scored in this dissertation in clarifying the apparent lack of transition of seafarers from seagoing careers and the process of developing tools to probe the phenomenon to address the challenge of transition. The research variables are drawn from the objectives and research questions. Thus for the study they include:

- i. Employability of seafarers after their seagoing careers and human resource practices ashore.
- ii. Seafarer skills and qualifications.
- iii. Technical and academic reference standards for met programmes.
- iv. Skill upgrade framework to address the changing dynamics of seafarers training and satisfying industry needs.

The (Figure 15) below shows the thought trail in identifying the variables.

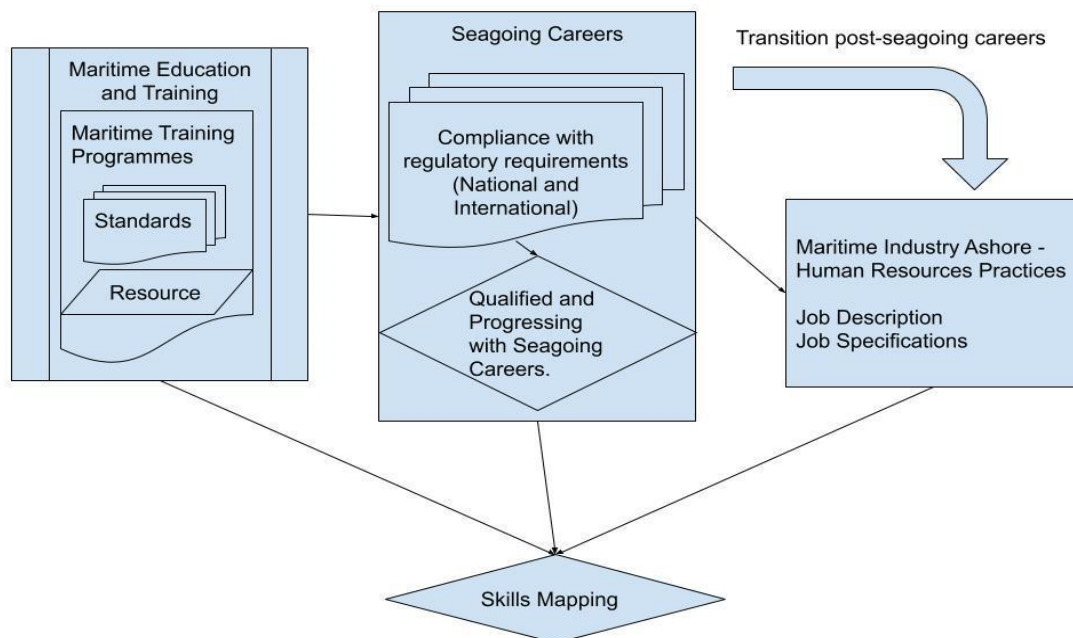


Figure 15: Concept Map for Research Variables

Source: Author

4.3. Target Population

The target population includes seafarers in addition to key stakeholders to the training and certification of seafarers, policy making institutions that have direct and indirect consequences to seafarers, employers and senior industry professional with seagoing experience. The population is organised in strata to realise the objectives of the dissertation and answer the research questions. The target population is designed to represent the identified thematic areas to rationalise time, cost and members of the population (Draugalis, Coons, & Plaza, 2008; Kotrlik & Higgins, 2001; Bartlett, 2005). These strata are justified as follows in (Table 3) as shown.

Table 3: Population Strata

SN	Strata	Justification
1	Maritime Education and Training (Administration) (META)	This strata is aimed at collecting data concerning educational and training policies in addition to trends and projections for new skills.
2	Maritime Industry (Maritime Education, Training and Certification) (MI-METC)	Certification and oversight is an important aspect either directly or indirectly. The state authorities and departments provide valuable feedback in the requirements for certification. The industry provides critical feedback that is an indirect oversight to the quality of the graduates and progressive industry needs in skills and competences.
3	Seafarer (Officers)	While it would be seen as unnecessary to separate officers from ratings, the rationale is to distinguish between the different levels of academic qualification. The active officers hold a minimum of diploma with considerable number holding undergraduate degrees. Thus it is

		expected that they hold a different perspective t academic training
4	Seafarers	This strata seeks to capture the views and opinion of the ratings who have the determination to excel academically or can be convinced to complete their academic qualification.

The key stakeholders in the strata are identified in the (Table 4) and further illustrated in (Table 5) in the subsequent sub-chapters.

4.4. Sampling Technique and Sample Size

Stratified random sampling was employed to realise a target population of fifty (50) participants. The sizes of each stratum were designed as follows based on precedence in stakeholder positioning:

Table 4: Stakeholder Stratum and Sample Sizing

SN	Stakeholder Cluster	Stakeholder description	Expected Response	Percentage (n=50)
1	Officer	This includes active officers and shore side officers not limited to Pilots, Marine Surveyors and Auditors	10	20%
2	Seamen (Ratings and inland waters)	This includes active ratings and other seafarers on-board inland water vessels such as barges, harbour tugs and the cross channel ferries	20	40%
3	META	The cluster includes heads of METIs and maritime centres including lecturers/ instructors	10	20%

4	MI-METC	This covers a wide scope of stakeholders from the industry such as employers and policy makers such as state organs and the maritime authority.	10	20%
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4.5. Data Collection Instruments and Methods

The following data instruments and methods were used to collect data. These instruments and methods were chosen to satisfy specific approaches to the realisation of the required data.

4.5.1. Observations

The author has been involved in the development of curriculum and other related frameworks to aid implementation of curricula such as the instructor's oriental manual and the instructors' guide for the instructors in addition to the trainee manuals for the syllabus and regulations developed by the KMA through the KICD.

Key to the observations are:

- i. The syllabus development process under the TVET guidelines;
- ii. The standard processes of developing curricula at the Universities;
- iii. Standard academic regulations of a University in Kenya;
- iv. Resolved conflicts and challenges during the curriculum development process in particular giving full effect to the STCW Convention and Code while working within the framework of the TVET guidelines;
- v. Implementation of MET and challenges relating to availability of resources to enhance education and training;
- vi. Maritime industry awareness of the STCW Convention and Code especially the competence requirements and its translation to job qualifications and specifications for Human Resource Management.

Other observations culminate from the interaction with the industry and key persons within Kenya's maritime cluster whether formally or informally.

4.5.2. Questionnaires

The questionnaires used included forms manually filled and electronic questionnaires through google forms. This was necessitated by the actual ability of seafarers to fill forms. The electronic questionnaire was majorly filled by the younger generation and seafarers holding shore side jobs. The electronic questionnaires were also filled by the maritime non-technical personnel which was determined by access to a computer. The younger generation of seafarers also filled the forms as transmitted by the researcher from the link posted on the seafarer's page on Facebook and WhatsApp messages distributed to some seafarers who shared and forwarded to other acquaintances.

The questionnaires have been designed to address different lines of thought within the maritime industry. The seafarer questionnaire has been designed to capture the opinion of the seafarers. However, taking into consideration the difference in operational level and training framework, the questionnaire while addressing the same line of thought, has been tailored to each level as identified through a general Seafarer questionnaire and a Seafarer (Officer) questionnaire. The maritime industry has been identified in thematic areas:

1. The education and training sector
2. The government, administration and certification sector
3. The employer sector.

The following schedule (Table 5) defines the administration of the questionnaires.

Table 5: Questionnaire Administration and Management Schedule

SN	Questionnaire	Sector of Administration	Proposed group of professionals
1	Maritime Education and Training (Administration) Questionnaire Form - Google Forms	1. Training Centre 2. Training Institute 3. Polytechnic	1. Vice Chancellor 2. Registrar in charge of Academics 3. Registrar in charge of Administration/Planning 4. Legal Officer

		4. National Polytechnic 5. College 6. University College 7. Technical University 8. University 9. Maritime Academy	5. Deputy Vice Chancellors in charge of Academics and of Administration/Finance/Planning 6. Dean of Faculty and Heads of an Academic Department directly involved in MET 7. Head of Research and Innovation 8. Lecturers
2	Maritime Industry (Maritime Education, Training and Certification) Questionnaire Form - Google Forms	Government institutions involved in maritime and shipping operations Institutions involved in developing MET curricula and certification of seafarers Employers in the maritime industry	1. The State Department of Shipping and Maritime Affairs 2. The Kenya Maritime Authority 3. The Kenya Port Authority 4. The Kenya Ferry Services 5. The Kenya National Examination Council 6. The Kenya Institute of Curriculum Development 7. Selected Employers: a. Grain Bulk b. COMARCO c. SECO d. Base Titanium e. Seaforth Limited f. Other Shipping companies and Agencies
3	Seafarer (Officer) Questionnaire	Officers holding certificate of competency	Selected Officers across the age groups

	Form - Google Forms		
4	Seafarer Questionnaire Form - Google Forms	Seafarers Union	Other seafarers who are non-officers including cadets

While it is intended that the questionnaires shall provide the necessary data, the methodology of data collection shall be revised where gaps exist and the data collected is not satisfactory.

4.5.3. Interview Guides and Procedures

The interviews seek to collect expert data from experienced seafarers with senior managerial positions ashore and within the industry. From the maritime industry, senior management of leading maritime and shipping companies to inform on the expectations of the employers. The interviews are further conducted with senior administrators in state departments and organs to shed light further on the national perspective on maritime as key component to realisation of the country's development agenda and vision. The interview shall not be substantive without the views of senior education and training administrators in the MET institutions as the key pillar to provision of the needed capacity and resources to drive the maritime industry.

4.6. Data Analysis and Presentation

The questionnaires are both structured and unstructured. The respondent in the structured part is required to answer questions on the skills and competences through a scale of importance defined as Yes and No choice.

Data is presented through the following:

1. Statistical graphs
2. Pie charts
3. Trend graphs

These presentations are employed to enhance clarity of results. The presentations shall then highlight the skills which are then translated to learning objectives and outcomes to inform the design of the programme specifications and reference standards.

4.7. Ethical Considerations, Reliability and Validity

To maintain anonymity, initials are used and respondents are anonymised where they have mistakenly included their names rather than initials. The initials are used to sustain reliability and validity of the data collected.

4.8. Limitations in Data Collection and Analysis

The collection of data is limited by time and resources. In addition, while using predictive modelling and analytics, the following are fundamental limitations:

1. Limited prediction of the future due to inability to control sudden changes in conditions, applied constants and anticipated sequence of events;
2. Inherent weakness in survey subjects and probability of bias as the subjects are humans;
3. Probability of undefined variables with result to unknown factors. This also poses a challenge to validity and reliability of data;
4. The suitability of an analysis process for comprehensive analysis is a challenge due to the nature of the research which involves both quantitative and qualitative data for a descriptive and analytical result;
5. Institutional bureaucracy and accessibility is also a factor to the limitations.

Chapter 5 – Data Analysis and Discussion

5.1. Introduction

The analysis of data and discussion includes the data collected in field research, data realised from academic literature review and analysis of relevant reports in addition to the analysis of the current syllabi approved in Kenya at the TVET level. This is analysed systematically to explore the current implementation of MET, describe the status of transition of seafarers to shore side jobs in addition to interpreting the views and opinions of the industry.

5.2. Analysis of Skills Gap Data from current Human Resource Trends

This section analyses the perceived skills required ashore in key maritime jobs. This is analysed through the current HR trends within the maritime industry in Kenya. This analysis seeks to answer the question of the skills required ashore. Therefore, investigating the HR practises ashore, the following skills (Table 6) are identifiable from the selected vacancies by selected key maritime employers.

Table 6: Table of Skills by Vacancies for selected Shore-based Jobs

SN	Vacancy	Organisation	Corresponding skills and knowledge
1	STCW Expert	KMA	<ul style="list-style-type: none">• Maritime and shipping regulations• Planning Organisational management• Leadership• Policy and procedure formulation• Strategic planning• Business planning• Operational budgeting and financial understanding
2	MET Expert		
3	Director General	KMA	<ul style="list-style-type: none">• Maritime/ shipping regulations• Planning Organisational management• Leadership• Policy and procedure formulation

			<ul style="list-style-type: none"> • Strategic planning • Business planning • Operational budgeting and financial understanding • Corporate governance • Human resource understanding
4	Training Officer (Nautical)	KPA	<ul style="list-style-type: none"> • Curriculum design, development and implementation • Examination and assessment • Knowledge management • Strategic planning and management • Budgeting and financial knowledge • Basic human resource management • Management skills • Leadership and organisational management skills • Quality knowledge
	Assistant Training Officer (Marine Engineering and Nautical)		
	HOD Marine Engineering	KPA	<ul style="list-style-type: none"> • Strategic planning and management • Budgeting and financial knowledge • Basic human resource management • Management skills • Leadership and organisational management skills • Quality knowledge • Maintenance planning • Tender evaluation

Data from the questionnaire highlighted the perceived preference of skills required for shore-based jobs. This is detailed further through the analysis of 'Future Skills

Training for Seafarers’. While the seafarers argued with a view of professional gratification, the employers were interested in accomplishment of tasks favourably based on economic considerations and business suitability. Thus it is clear that deeper interaction of METIs and the maritime industry is sought. This is not entirely to provide labour specific skills but to understand the dynamics of the industry for both short and long term projections.

5.3. Analysis of the Questionnaires

The questionnaires were analysed in line with the research questions. The structure has been adopted to address the difference in roles, obligations and professional opinion. The data analysis took the following structure:

- a. Number and profile of actual respondents
- b. The opinion of seafarers at non officer levels
- c. The opinion of officers
- d. The opinion of the institutions involved in education, training and certification.
- e. The opinion of the wider maritime cluster.

5.3.1. Target Population

The target population was established at fifty (50) participants (Table 4). However, the data collection exercise drew the attention of the seafarers at all levels hence surpassing the target. The questionnaires realised 208% response as shown in the Table 7 and illustrated in Figure 16.

Table 7: Actual Response form Target Population

SN	Stakeholder Cluster	Expected Response	Percentage (n=50)	Actual Response	Percentage (n=104)
1	Officers	10	20%	13	13%
2	Seamen	30	40%	71	68%
3	Maritime Education and Training (Administration)	5	20%	5	5%

4	Maritime Industry (Maritime Education, Training and Certification)	5	20%	15	14%
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Response from the maritime industry almost doubled. This has been partly attributed to the essence of the research and research on maritime skills involving seafarers has not featured prominently in the maritime industry in Kenya.

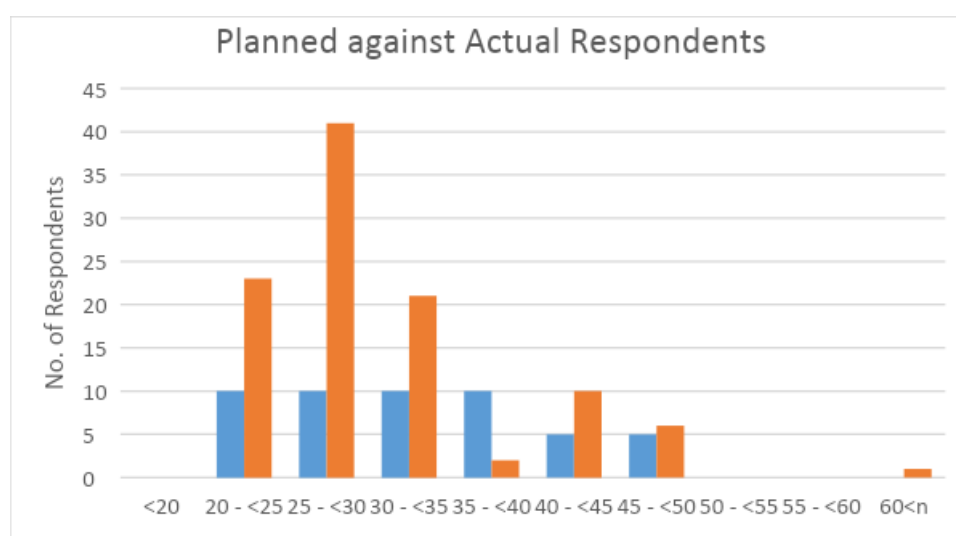


Figure 16: Representation of Actual Against Planned Respondents

Cadets were identified with ratings as they do not hold certificates of competence.

5.3.2. Participants' Demographical Composition

The respondents' data was analysed in age profile and educational qualifications. This, with the view to contextualise the respondent's experience, knowledge and academic training. The Figure 17 shows respondents' age distribution .

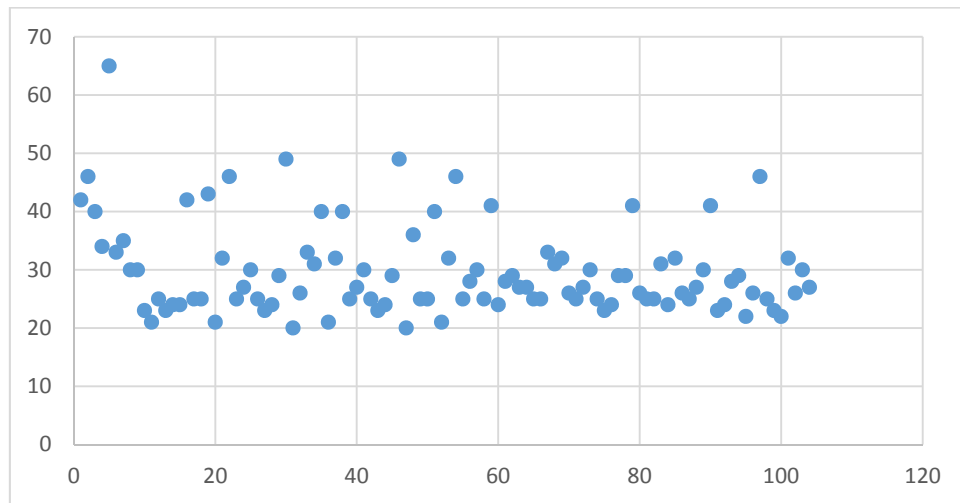


Figure 17: Participants' age profile

We find the average age as 29.7 with a median age of 27 with the most respondent age being 25-30 bracket (Table 8).

Table 8: No of Respondents in Each Age Set

Age	< 20	20 -<25	25 -<30	30 -<35	35 -<40	40 -<45	45 -<50	50 -<55	55 -<60	=> 60	Total
No.	0	23	41	21	2	10	6	0	0	1	104

The age profile ranged between 20 and 65 years as shown in Figure 28.

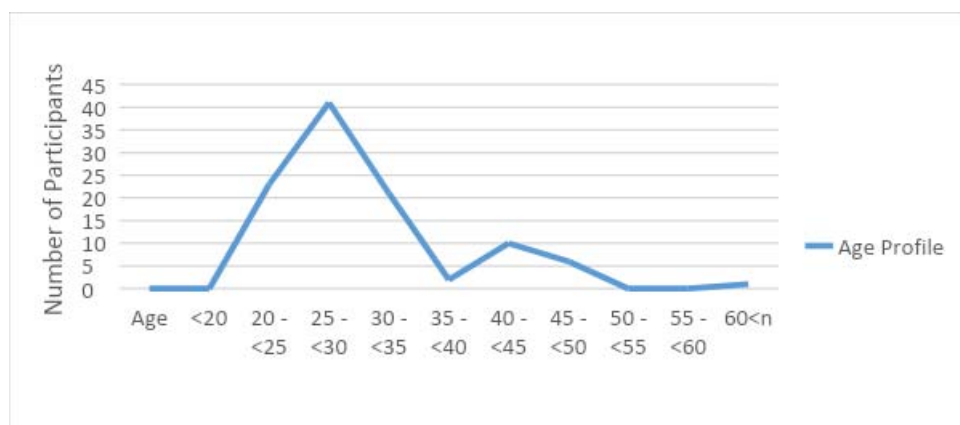


Figure 18: Age profile trend

We also find that the majority of seafarers are below the age of 40 (Figure 19), showing a generational gap (Table 8) and skewed to the younger generation (Figure 18).

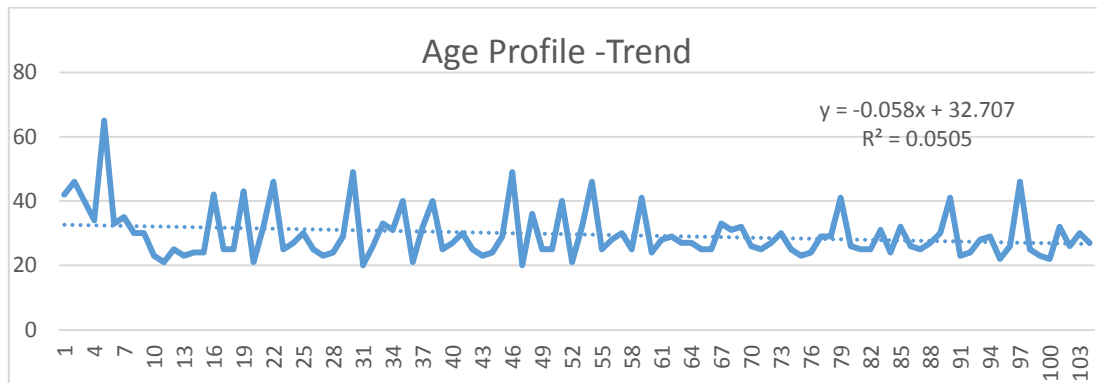


Figure 19: Seafarer Age Profile Analysis

This supports the need for defining skills for seafarers beyond their seagoing careers relative to the dynamics of technology advancement influencing the nature of operations and qualifications for future seafarer.

5.3.3. Analysis of the Seafarer (Non Officer) Questionnaire

The population required was established from the database of seafarers both at the rating and the officer levels. Stratified random sampling was employed to realise a target population of thirty (30) participants. These individuals were required to fill out the questionnaires designated as ‘Seafarer’s Questionnaire Form’. The questionnaires were available in English as hard copies and online as google forms. The questionnaire ‘Seafarers Questionnaire Form’ was administered through the Seafarers Union of Kenya to find the most heterogeneous population in terms of age and experience as shown in (Table 9).

Table 9: Population Analysis from Seafarer’s Questionnaire Form

	Min	Max	Median	Avg	SD
Age	20	60	40	40	20
Experience (in Years)	1	40	20.5	20.5	19.5

5.4. Interview data

The interview format followed a framework for professional opinion addressing key areas in seafarer training and employment. This included heads of educational institutions, heads of departments and managers within the industry.

The current trend in technological advances affects both the non-maritime and the maritime industries. Thus with the industry 4.0 taking shape it is important that such considerations are made during curriculum development at all levels of maritime training (MM01, 2019; MM02, 2019; MM03, 2019; IS01, 2019; IS02, 2019; IS03, 2019; METI01, 2019; METI02, 2019). While such considerations are important MM01 (2019), MM02 (2019) and MM03 (2019) stress alignment to the STCW Convention and Code at the degree levels and providing an entry into specialisation during the last year of a degree course. This then would translate into clear progression to the shore-based careers. IS01 (2019) and IS02 (2019) stressed the importance of involving the industry in curriculum development. This is a key factor to note during curriculum presage (Print, 1993; Manuel, 2018). While agreeing with IS01 (2019) and IS02 (2019) on industry consultation, IS03 (2019) further stressed the importance of involving seafarers. MM01 (2019), MM02 (2019) and MM03 (2019) pointed out that seafarers have been the missing link to curriculum development and as such agreed with IS01 (2019), IS02 (2019) and IS03 (2019). METI01 (2019) and METI02 (2019) pointed out that it was challenging to recruit experienced seafarers due to the remunerations ashore and the requirements set by the CUE regarding lecturers teaching at degree levels. Although the stakeholders differed, one thing was prominent, that there is a need to relook into the framework for MET in Kenya. This includes programme specifications, academic standards and human capacity policies.

5.5. Data Analysis.

This section discusses the data realised from the questionnaires and interviews. The discussion is through a thematic process that answers the (Research Questions) to realise the (Aims and Objectives) of the dissertation. Answers to the research questions are defined in the following structure:

- a. Employability of the seafarer ashore post seagoing careers is answered through:
 - i. investigating the human resource (HR) practice in Kenya' maritime industry,
 - ii. skills mapping,
 - iii. analysis of the relevance of current training framework in enhancing transition to shore jobs,
 - iv. analysis of the regulatory framework in education in Kenya including MET to enhance the transition, especially the KNQF.
- b. Future Skills Training for Seafarers is mapped through:
 - i. skills mapping,
 - ii. seafarer expert opinion,
 - iii. employer preference
 - iv. assessment of the dynamics of the industry and
 - v. analysis of the regulatory framework in education in Kenya including MET to enhance the transition
- c. The regulatory and professional framework is investigated analysis of the relevance of current training framework in enhancing transition to shore jobs and analysis of the regulatory framework in education in Kenya including MET to enhance the transition.

5.5.1. Employability of the seafarer ashore post seagoing careers

This section analyses the future skills required to enhance the employability of seafarers for shore jobs. This analysis answers the question on skills and industry relations in developing curriculum for seafarers (research questions i, iii, iv and v). In analysing job description and specifications within the maritime industry the need to address cognisance of the competencies acquired by seafarers through their training is highlighted. The analysis shows dominance of management skills as shown by the Figure 20 below

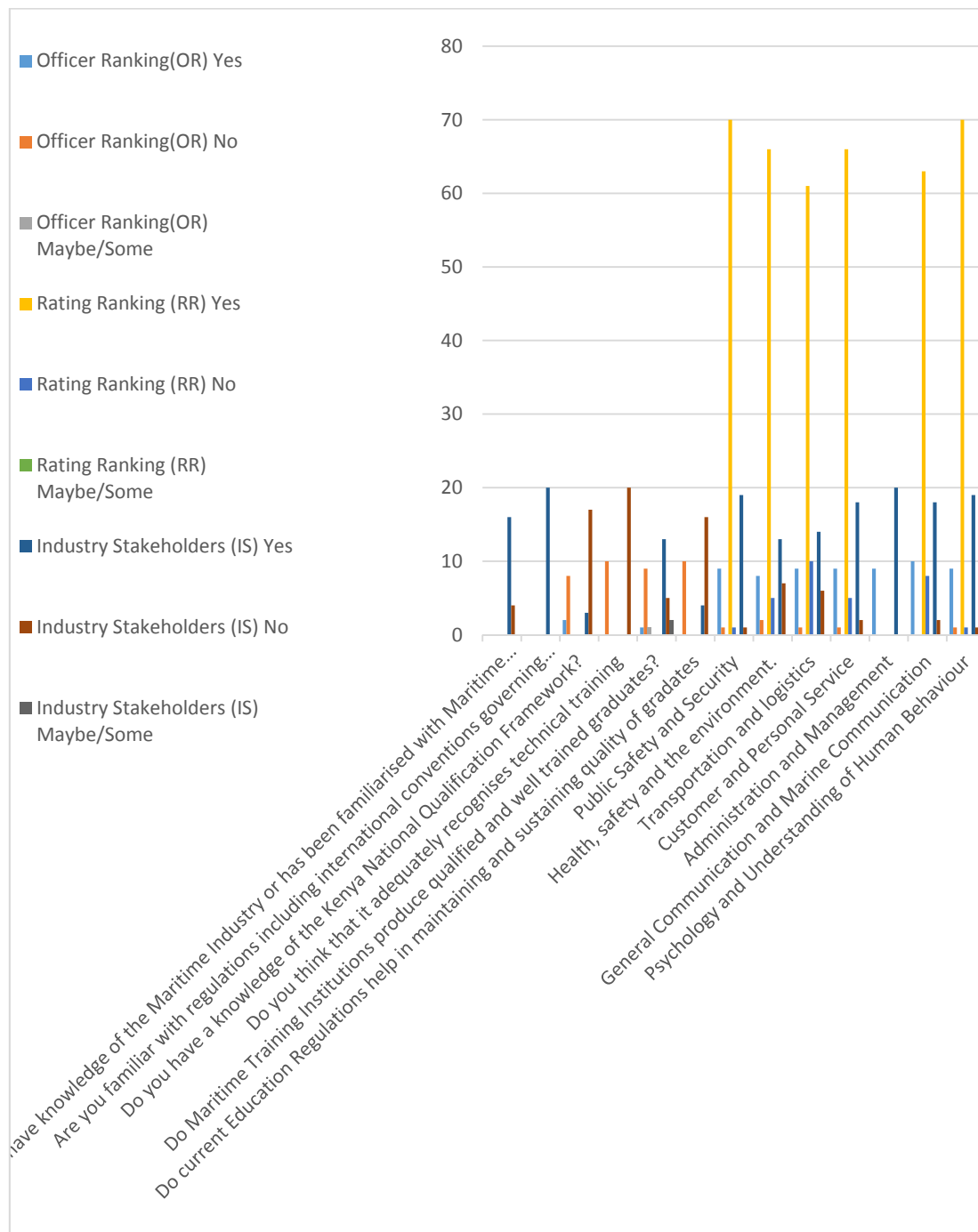


Figure 21: Consolidated Response for the Questions

The research also identifies the lack of knowledge of the qualification framework. The officer cadre data shows that 80% have no knowledge of the existence of the Kenya National Qualification Framework (KNQF) as shown in Figure 22 below.

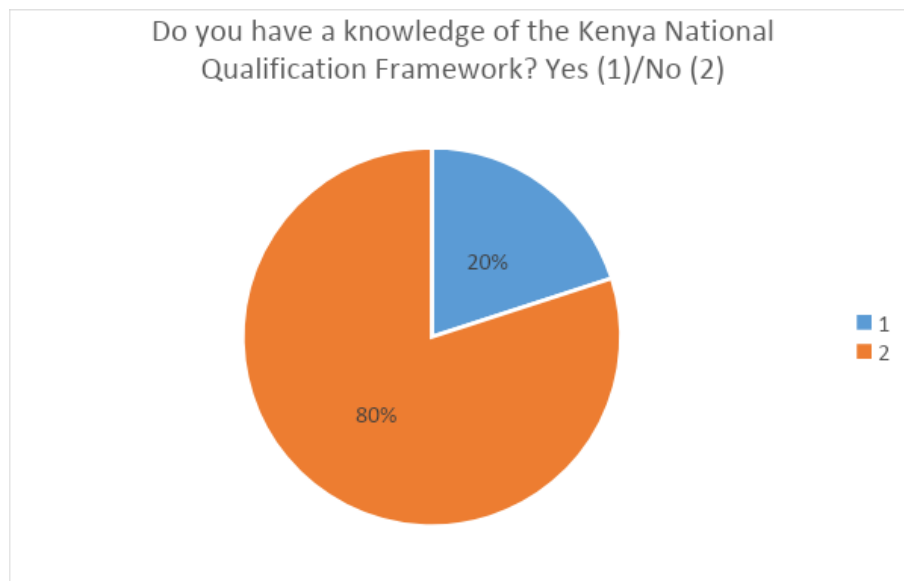


Figure 22 : Analysis of KNQF Knowledge

The KNQF defines the levels of skills and training; thus, it is of importance in developing educational and training programmes. A critique of the framework's relevance to the maritime industry and its recognition of competences defined by the STCW Convention and Code is therefore necessary to accurately define skills level.

All the respondents agree that the existing framework does not add value to the maritime industry as shown in Figure 23 , hence the need to address the gaps.

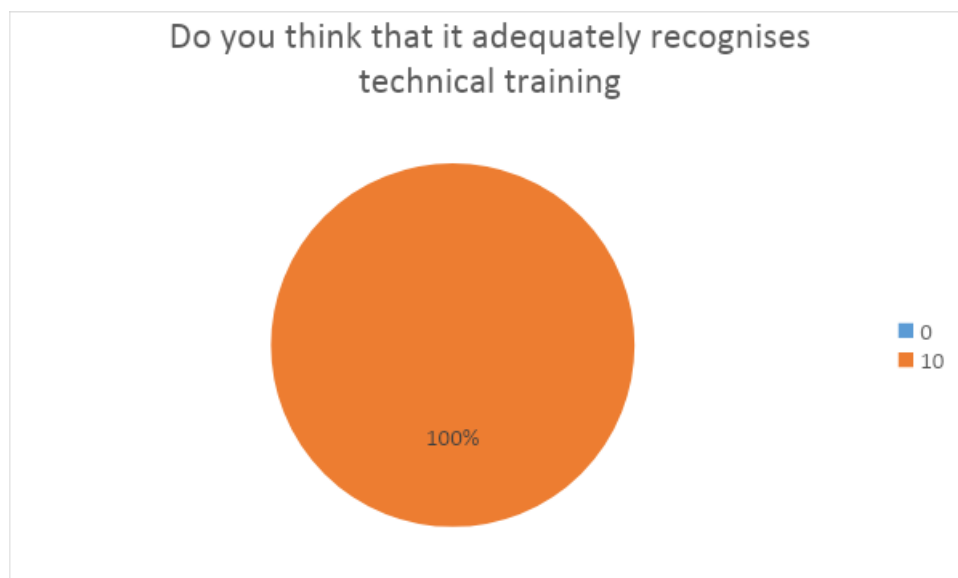


Figure 23: Analysis of KNQF (Knowledge) Relevance of Application

5.5.2. Future Skills Training for Seafarers

This section presents the skills identified to enhance employability of seafarers. The section analyses the response to the research questions (**Error! Reference source not found.**) and (**Error! Reference source not found.**). In analysing the thematic areas respondent to, we find the results as follows:

- i. There is a near consensus on majority of the skills
- ii. Skills enhancing human interactions are key to the professional development of the seafarers in addition to diverse managerial skills.
- iii. The interviewees concur with the respondents that health safety and environment training should be inclusive of distinct skills requires ashore.

From the data we find that majority of the ratings agree that in addition to maritime law, the knowledge of Public Safety and Security (Knowledge of relevant laws and policies, to safeguard national interests) is key to their training to enhance their competitiveness as shown by (Figure 24). The respondents were thus asked if they agreed (Yes) or disagreed (No) that knowledge of public safety and security is important for the seafarers. The question is based on the application of International Ship and Port Facility Security (ISPS) Code which defines the responsibilities of governments, shipping companies, shipboard personnel, and port/facility personnel in detecting and preventing security threats to ships and port facilities. This therefore brings the necessity for knowledge of risk assessment and management.

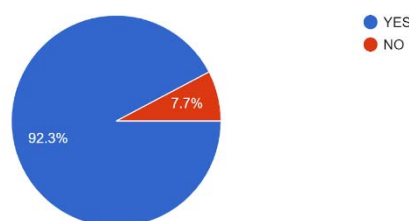
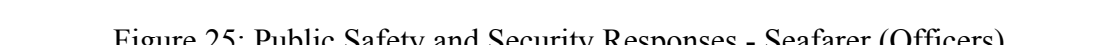


Figure 24: Public Safety and Security Responses - Seafarer (Ratings)



Industry	Percentage
Electronics	10%
Contract management	10%
Others	80%



Therefore, consolidating the thematic skills responded to and the skills identified and proposed by the respondents we find the totality as represented in the figure above (Figure 26).

A clear orientation to business, management, analytical and planning skills in addition to communication skills and financial knowledge as shown in Figure 27.

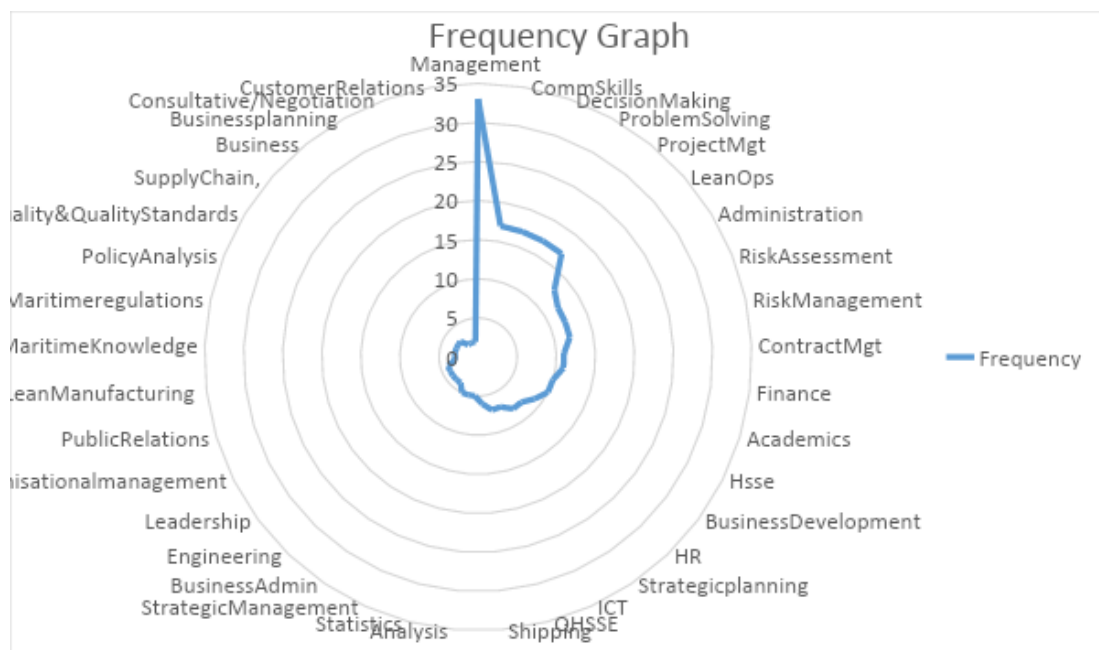


Figure 27: Skills bias diagram

The results show dominance of skills within the thematic areas of business, management and administration, strategy and finance. The skills were realised from interviews and questionnaires where the respondents were asked to name the skills they saw necessary in addition to the skills identified in the questionnaire.

5.5.3. Regulatory and professional framework

The section highlights the status and the administration of MET in Kenya. This is with a view to highlights the challenges on design, development and implementation of the curricula and their effect on transition of seafarers from seagoing careers to placements ashore. Thus looking at the research question (ii), we find that other than the STCW Convention and Code a number of regulatory regimes have an impact at both the institutional and the national levels. Following the response of the employers, we find that 75% of the respondents , as shown by Figure 28, are familiar with the Kenya National Qualifications Framework (KNQF) which outlines the job skills and levels in attempting to harmonise recognition of skills and training.

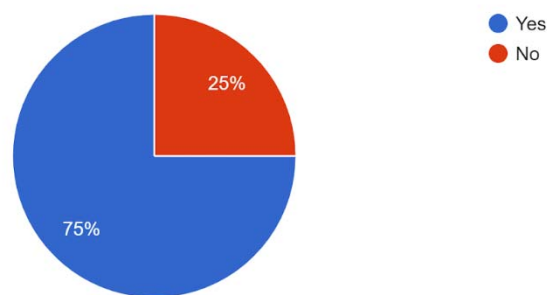


Figure 28: Questionnaire Response to understanding of the National Qualification Framework, response of the employers

The employers also agree that the framework does not adequately address skills related to the maritime industry as shown by Figure 29 below.

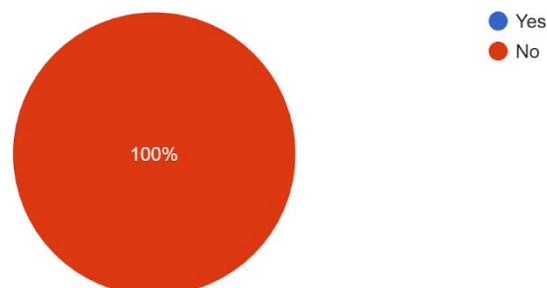


Figure 29: Does the KNQF adequately address on-board competencies?

The employers agree to a large extent that the current regulatory framework for MET can sustain quality of graduates with 25% disagreeing (Figure 30). Those disagreeing further in the interview stress the necessity to formulate independent educational guidelines for MET.

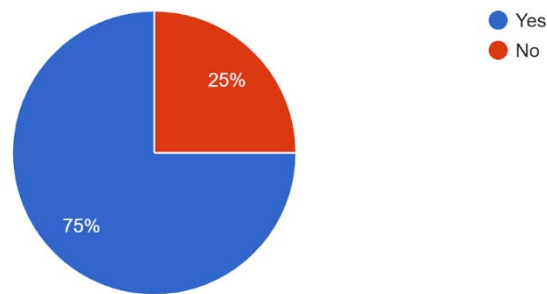


Figure 30: Does the current Educational Regulations sustain quality of education?

This is further supported by the employers' sentiments that quality is not guaranteed from the METIs. This is shown by the varied opinion in the Figure 31 below.

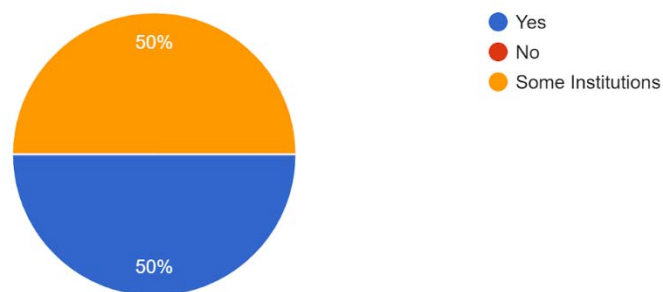


Figure 31: Do MTIs produce qualified and well trained graduates

The professional opinion from seafarers lead to questioning quality assurance in METIs and points that the importance of QSS has been overridden by the wide use of QMS by METIs contrary to the requirements of the STCW Regulation I/8. The respondents agree that the importance of QSS cannot be underscored as shown by the Figure 32.

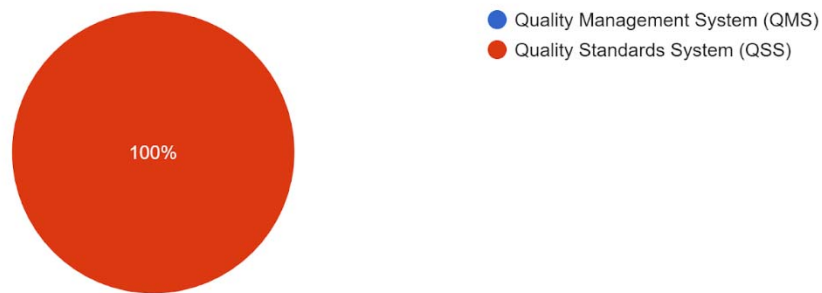


Figure 32: Relevance of QMS and QSS

The stakeholders interview was in agreement that superimposing and juxtaposing the existing training policies and regulations on MET has negative impact on the output. The stakeholders agree that full compliance to the Merchant Shipping (Training and Certification) 2016 is paramount and should be placed higher in hierarchy of implementation. This further calls for an MET specific framework. The changing environment of the maritime industry has major effects on seafarers. With more adoption of technology in ship operation and shore-based operations, (MM01, 2019), (MM02, 2019) and (MM03, 2019) allude to the necessity for holistic approach to curriculum development and the experience in addition to the qualifications of curriculum developers (Manuel, 2018). Hence the proposal for tiered professional development for seafarers and recognition of the highest certificate as master mariner and chief engineer. This in addition to a scalable training programme to postgraduate and transitioning from TVET to academic training shall enhance the transition from shipboard environment to the jobs ashore.

5.6. Conclusion

This section concludes the chapter and initiated the discourse for action plan that shall be proposed in the next chapter. The following are key to the discourse on addressing the challenges of apparent deskilling of seafarers post seagoing careers.

5.6.1. Mapped Skills

The current diploma courses have attempted to include some of the identified skills. This however was as a result of superimposing MET on the existing TIVET framework

and as such it subconsciously benefited from the inclusion of ‘soft skills’. It is conspicuous that Communication Skills is key to the seafarer training (Figure 33).

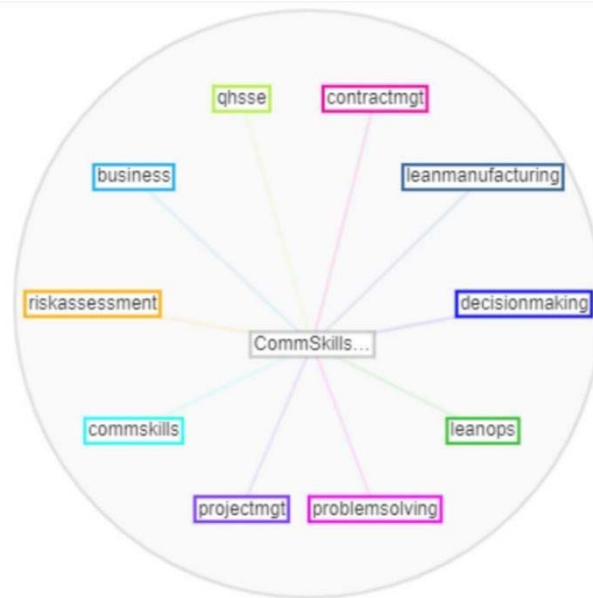


Figure 33: Communication Skills Correlating to other skills

The seafarers’ opinion however presents a directional focus on the maritime safety, security and environment. While ratings do see the need for the inclusion of the relevant skills, the officer cadre articulate the skills required at all levels of training including the postgraduate academic training. In addition to the seafarer’s perception the industry stakeholders placed an emphasis on financial knowledge, management and administrative skills, corporate writing skills and risk management. This is visualised by the Figure 34 below.

Chapter 6 – Action Plan: Draft Programme Specification and Reference Standards

6.1. Introduction

The chapter presents the action plan to address the specific challenge of perceived insufficient qualification for seafarers in occupying shore-based maritime vacancies. This is proposed through the establishment of programme specification and reference standards that shall inform the human resource management practices specific to the maritime industry.

The specifications are drawn from the skills identified in the empirical research conducted. The research has highlighted the necessity for interrogating the dynamics of the industry in establishing the skills required for the maritime clusters.

6.2. Defining Programme Specification

Defining programmes specification as a reference point for delivery of a programme (Quality Assurance Agency for Higher Education (QAA-UK), 2018) is an important and vital process in curriculum development. QAA-UK (2018) defines programme specification as *‘a definitive record of each programme or qualification approved and its intended learning outcomes’* and Academic Standards as *“the standards that individual degree-awarding bodies set and maintain for the award of their academic credit or qualifications”*.

The data analysis identifies gaps and highlights challenges in seafarer training in Kenya. In developing the programmes specifications and the references standards, categorisation of the syllabus contents into a structural components aids in having a clear progression methodology in the design and development process. The dissertation adopts the following:

- i. General courses
- ii. Foundation courses
- iii. Professional/Core maritime and Statutory courses
- iv. Complimentary training to OOW Certification.
- v. Practical Training.

6.3. Programme Specifications

Defining programme specifications is key to the formulation of reference standards. It promotes a systematic process which encompasses critical reflection on the curriculum and defines the means

by which the learning outcomes are achieved, demonstrated (Jackson, 2000a; Quezada-Sarmiento, Enciso-Quispe, Garbajosa, & Washizaki, 2016) and assessed. This in turn provides the bedrock for quality assurance and stakeholder assurance of the quality of the programme thereby enabling peer review. The following are the proposed programme specifications (Jackson, 2000b).

6.3.1. Technical and Academic Reference Standards for Nautical Science and Maritime Transport

In addressing the challenges of transition, it is important that the student is equipped with skills that shall enable qualification both as seafarers and maritime professional based ashore. It is therefore important to develop a programme specification. The Table 10 below outlines the proposed programme specifications.

Table 10: Programme Specifications (Standards) for Nautical Science

Aims of the Programme	
	<p>The aim of the Nautical Science and Maritime Transport programme is to develop the students for qualifications both as a Merchant Navy Deck Officer and maritime professional ashore. The students develop the</p> <p>knowledge, Understanding, Proficiency skills and attitudes necessary for the career path. The curriculum is designed to address the demands of the maritime industry. It prepares the student to develop aspects of their future career including management positions in the wider maritime industry.</p>
Knowledge and Understanding (KU)	KU1. Demonstrate practical knowledge of the operational requirements on board ships.
	KU2. Examine issues related to the wider shipping industry, management and business & law related to shipping.
	KU3. Discuss the theory applied to Shipboard Operations such as Navigation, Stability and Cargo Operations.

Cognitive and Intellectual Skills	CI1. Develop the ability to apply theoretical knowledge in a variety of marine related situations.
	CI2. Think critically and analyse prevailing situations to draw informed conclusions for appropriate action
	CI3. Develop ability to research and organise information from a variety of sources
	CI4. Demonstrate cognitive skills necessary to plan and conduct a report of original research.
	CI5. Recognise the implications of professional and ethical responsibilities of the maritime industry
Professional Skills	PS1. Organise data from a variety of sources, analyse the information, apply to practical marine/shipboard operations and appraise the results for appropriate corrective measures.
	PS2. Demonstrate competence in operational procedures of vessels including coastal and open sea navigational problems and cargo operations
	PS3. Demonstrate professionally recognised navigation and ship operations skills
Competence	CC1 demonstrate competence in Navigation
	CC2 demonstrate competence in Cargo Operations
	CC3 demonstrate competence in controlling the operation of the ships and care of persons on board.
	CC4 demonstrate competence in Radio Communications

Key Generic Skills	KG1. Demonstrate competency and literacy in use of ICT in maritime and business operations.
	KG2. Demonstrate effective communications across different media
	KG3. Demonstrate optimum performance across a range of activities, including self-directed learning, research and project management.
	KG4. Demonstrate ethical leadership and teamwork.
Learning Outcomes	LO1. Apply comprehensive knowledge of the theory, concepts and methods of navigation, ship operations, leadership and management on-board a ship and in maritime transport context.
	LO2. Apply research skills, critical thinking and analysis in knowledge acquisition and solving marine and ship operation related problems.
	LO3. Specify and use appropriate techniques, skills and tools to conduct the safe operation of ships and to manage a variety of maritime operations.
	LO4. manage, evaluate and critically analyse complex navigational and operational situations and to exercise appropriate and autonomous judgment in such functions.
	LO5. identify, formulate and use problem solving skills in a professional, accountable and creative manner in a wide range of maritime contexts.
	LO6. Operate autonomously and in a team and to take a leadership role within complex teams.

	LO7. Manage personal learning needs at the personal and professional level and to articulate and defend the need for continuous competence development and learning.
	LO8.Demonstrate comprehensive understanding of the wider social, business and environmental issues within which the nautical profession operates and the need for ethical standards including the responsibilities towards people and the environment
	LO8.Apply appropriate knowledge and proficiency in care of persons and cargo on-board for safe and secure operations of the ships.

6.3.2. Technical and Academic Reference Standards for Marine Engineering Technology (Shipboard Operations and Electro-Technical Engineering)

For qualification as an engineering officer on-board and as an engineer ashore , The Table 11 below outlines the proposed programme specifications for Marine and electro-technical engineering.

Table 11: Programme Specifications (Standards) for Marine and Electro-Technical Engineering

Aims of the Programme	
	The aim of the Marine and Electro-technical engineering programme is to develop the students for qualifications both as a Merchant Navy Engineering Officer and maritime professional ashore. The programme is aimed at providing the student with the necessary academic and technical background that covers the understanding of design, the construction, maintenance and operation of marine vessels and structures. The students develop the knowledge, Understanding, Proficiency skills and attitudes necessary for the career path. The curriculum is designed to address the demands of the maritime industry. It prepares the student to develop aspects of their future career including management positions in the wider maritime industry.
Knowledge and Understanding (KU)	KU1. Demonstrate practical knowledge of the operational requirements on board ships including selection of engineering materials.
	KU2. Examine issues related to the wider shipping industry, management and business & law related to shipping and marine engineering.
	KU3. Demonstrate knowledge of the working principles of marine engineering systems. (Marine Engineering)

	KU4. apply acquired knowledge and skills in operating, maintenance and repair of shipboard electrical machines (Electro-technical Engineering)
	KU4. apply acquired knowledge and skills in operating, maintenance and repair of shipboard equipment and machinery (Marine Engineering)
	KU5. demonstrate knowledge of principles of engineering watch and engine resource management comply with regulations on safety at sea and protection of the marine environment from pollution by ships.
	KU6. demonstrate an understanding of the concepts of ship construction , stability and the influence of dynamic mechanical forces on the design of a vessel (Marine Engineering)
	KU7. Apply the knowledge of Mathematics, science and the fundamental concepts, principles and theories of Engineering and appreciate their limitations
Cognitive and Intellectual Skills	CI1. Develop the ability to apply theoretical knowledge in a variety of marine engineering related problems.
	CI2. Think critically and analyse prevailing situations to draw informed conclusions for appropriate action
	CI3. Develop ability to research and organise information from a variety of sources
	CI4. Demonstrate cognitive skills necessary to plan and conduct a report of original research in engineering relevant to the maritime industry

	CI5. Recognise the implications of professional and ethical responsibilities of the maritime and marine engineering industry
Professional Skills	PS1. Organise data from a variety of sources, analyse the information, apply to practical marine/shipboard operations and appraise the results for appropriate corrective measures.
	PS2. Demonstrate competence in maintenance and repair of the ship, its equipment and machinery.
	PS3. Demonstrate professionally recognised skills in the use of analytical and technical tools, techniques and equipment in solving marine and electro-technical problems through creation of components and processes.
	PS4. Analyse process results and determine their validity and accuracy in complex engineering technology processes
	PS5. 3. Apply the knowledge of control and electrical systems relevant to marine applications and shipboard applications.
Competence	CC1. Demonstrate competence in marine engineering
	CC2. Demonstrate competence in electrical, electronic and control engineering
	CC3. Apply knowledge , skills and proficiency in Maintenance and Repair.
	CC4. Demonstrate competence in general engineering and technology
Key Generic Skills	KG1. Demonstrate competency and literacy in use of ICT in maritime and business operations.

	KG2. Demonstrate effective communications across different media
	KG3. Demonstrate optimum performance across a range of activities, including self-directed learning, research and project management.
	KG4. Demonstrate ethical leadership and teamwork.
Learning Outcomes	LO1. Demonstrate knowledge of mathematical and science skills in application of principles of Engineering technology
	LO2. Apply research skills, critical thinking and analysis in knowledge acquisition and solving marine engineering, ship operation and electro-technical engineering related problems.
	LO3. Specify and use appropriate techniques, skills and tools to conduct the safe operation of ships and to manage a variety of maritime operations.
	LO4. Manage, evaluate and critically analyse complex navigational and operational situations and to exercise appropriate and autonomous judgment in such functions.
	LO5. Identify, formulate and use problem solving skills in a professional, accountable and creative manner in a wide range of maritime contexts.
	LO6. Operate autonomously and in a team and to take a leadership role within complex teams.
	LO7. Manage personal learning needs at the personal and professional level and to articulate and defend the need for continuous competence development and learning.

	LO8.Demonstrate comprehensive understanding of the wider social, business and environmental issues within which the nautical profession operates and the need for ethical standards including the responsibilities towards people and the environment
	LO8.Apply appropriate knowledge and proficiency maintenance of the ship, equipment and machinery for safe operations of the ship.

6.4. The framework for Reference Standards

While establishing a framework for programme specification, it is worthwhile to note that universities are empowered through their charters. As such a number of factors come into play including the specific university teaching requirements for a curriculum and faculty/college units for courses developed within the faculty/college. In aiming to graduate competitive seafarers for the global maritime industry, the following academic and technical reference standards are proposed. This is based on the STCW Convention and Code as foundation while addressing the national education and training objectives and taking cognisance of the technical and professional needs for the maritime industry and the blue economy.

It is also necessary that a framework for instructor/lecturer qualification is drawn to optimise the qualification and experience required for the implementation of the programme. This is a necessary input as highlighted by Manuel (2018) where the philosophical orientations of the curriculum developer have an effect to the content of the programme.

Chapter 7 – Conclusion and Recommendation

7.1. Conclusion

From the research, it was evident that the key challenge of translating the requirements of seafarers training and complementing the training with an interdisciplinary approach could not be addressed by the current state of regulatory requirements and structure for developing curricula. This could neither be achieved through the normative practices in METIs especially in Universities. The country's legal framework for MET is the Merchant Shipping (Training and Certification) Regulations which is designed to give full effect to the STCW Convention and Code in addition to defining MET in Kenya. This is as a result of superimposing the MET structure on available structures which do not recognise the unique component of a global minimum standards for seafarers training. We therefore deduce from the findings that in addition to the STCW competencies there is a need to incorporate other relevant skills. This is done without underscoring the importance of compliance to the STCW Convention and Code.

7.1.1. Bridging the Divide Between Academia and Practice

Transferable skills are critical to ensure critical awareness and the ability to employ creativity and resourcefulness in complex problems and circumstances in addition to ability to deal with unpredictable situations effectively (Ballinger & Lalwani, 2000; Shah, Treby, May, & Walsh, 2007). Thus the student should not only gain qualifications and qualities that is required by the employer but should also impart such qualities that develops originality and creativity in thinking, self-reflection and personal responsibility when placed in leadership and management positions (Ballinger & Lalwani, 2000; Shah et al., 2007; Yasin & Rahman, 2011). This should further be enhanced with critical thinking and research training to provide the necessary tools for possible further education in academia. It should also take into account interdisciplinary approach for sustainable development through creating the necessary framework to enable the understanding of independence and interconnections of different disciplines (Yasin & Rahman, 2011).

7.1.2. Enhanced Industry-Academia Relations

Industry-academia relations are key to satisfying the demands of the industry while maintaining a proactive approach to the developments of the industry. Bridging this gap not only provides the avenue to address skills acquisition for students but drives research and innovation in the industry (Chokkadi, Chethan, & Jeppu, 2018; Sen, Ganguly, & Sen, 2015; Brito, Albuquerque, Barreiros, & Cruz, 2018; Jasny, et al., 2017; Hanieh, Abdelall, Krajnik, & Hasan, 2015).

Technology is fast developing. This has a direct effect on the design and delivery of the curricula. It is therefore important that a Framework for periodic industrial engagement for Lecturers is developed. This, as informed by (Brito et al., 2018) is key to informing curriculum design and development.

7.1.3. Subtle Observations During Interviews and Data Analysis

In analysing the data presented, as subtle concern arose in attempting to address the challenges of seafarer employability. While it is not entirely required, it was evident that:

1. Most instructors and lecturers with seafaring background lacked critical skills in social, psychology and pedagogical competencies.
2. Lecturers with non-seafaring background exhibited a lack of an understanding of a seafarers training and the dynamics of the maritime industry
3. Equally human resource professionals had difficulties in understanding what is the framework of seafarers training and quite a number alluded to the understanding that seafarers have basic training in operations. Thus, equating a Master Mariner and a Chief Engineer to a technologist if placed higher and a technician in general terms.

Therefore, a critical question arises, ‘does Kenya need a framework to regulate maritime instructors and lecturers’?

7.2. Recommendations

The dissertation hence, make the following recommendations:

- 7.3.1. Guidelines for curriculum design and development to be effected including qualification of curriculum developers, quality procedures for assurance. The Commission for University Education (CUE) should also be guided on the requirements of meeting the requirements of the STCW convention and Code where the training for Officers of the Watch (OOW) has been packaged as a University degree.
- 7.3.2. A tripartite consultative forum should be established through an ad hoc arrangement to facilitate harmonisation of vocational and academic training to enable better transition from TVET path to the academic path. This should include the Maritime Administration including relevant government organs such as representation from the seafarers, labour, the training institutions and the employer consortium.
- 7.3.3. A tripartite consultative forum including the Maritime Administration, Professional bodies with interests allied to MET and industry experts establish a knowledge base for indicators to accreditation and registration of such professional qualifications.

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Appendices

Appendix I – Questionnaire for Seafarers (General)

1/25/2019

Seafarer Questionnaire Form

Seafarer Questionnaire Form

This questionnaire is part of the data collection tools for the dissertation of seafarers transition to shore jobs post seafaring career

* Required

1. Email address *

2. Dear Participant, Thank you for agreeing to participate in this research survey, which is carried out in connection with a Dissertation which will be written by the interviewer, in partial fulfillment of the requirements for the degree of Master of Science in Maritime at the World Maritime University in Malmo, Sweden. The topic of the Dissertation is Addressing the De-Skilling of Seafarers Post Seagoing Careers: The Case Study of Kenya. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted. Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded. Your participation in the interview is highly appreciated. Student's name TALIB IBRAHIM MOHAMMED, Specialization: MARITIME EDUCATION AND TRAINING Email address W1701717@WMU.SE *** I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrollment. *

Mark only one oval.

- ☐ Yes
☐ No

Personal Information

Kindly fill all the fields

3. Name (Initials Only) *

4. Age *

5. Seafarer Rank *

Mark only one oval.

- ☐ Rating
☐ AB
☐ Cadet
☐ Other:

6. Level of Education **Mark only one oval.*

- ☐ Certificate
- ☐ Diploma
- ☐ Other: _____

7. Basic Safety (PSSR, PST, Elementary First Aid, Security Awareness, Fire Fighting & Fire Prevention) **Mark only one oval.*

- ☐ Yes
- ☐ No

8. Survival craft certificate of proficiency **Mark only one oval.*

- ☐ Yes
- ☐ No

9. Designated Security Duties training*Mark only one oval.*

- ☐ Yes
- ☐ No

10. Fast rescue boat certificate **Mark only one oval.*

- ☐ Yes
- ☐ No

11. Advanced fire fighting **Mark only one oval.*

- ☐ Yes
- ☐ No

12. Basic training for officers on oil, and chemical tanker cargo operations **Mark only one oval.*

- ☐ Yes
- ☐ No

13. Basic training for ratings on oil, and chemical tanker cargo operations **Mark only one oval.*

- ☐ Yes
- ☐ No

14. Basic training for ratings on liquefied gas tankers cargo operations **Check all that apply.*

- ☐ Yes
☐ No

15. Training in crowd management **Mark only one oval.*

- ☐ Yes
☐ No

16. Any Offshore training **Mark only one oval.*

- ☐ Yes
☐ No

Skills Identification:

Determine which of the following listed knowledge is important for a seafarer to work ashore

17. Public Safety and Security (Knowledge of relevant laws and policies, to safeguard national interests) **Mark only one oval.*

- ☐ YES
☐ NO

18. Health, safety and the environment. (Knowledge of HSE Policies, implementation and audits) **Mark only one oval.*

- ☐ YES
☐ NO

19. Transportation and logistics: (Knowledge of methods and principles for moving goods to people by sea, air, road or rail, along with the benefits and associated costs). **Mark only one oval.*

- ☐ YES
☐ NO

20. Customer and Personal Service: (Knowledge of principles and the relative processes for providing excellent personal customer services) **Mark only one oval.*

- ☐ YES
☐ NO

21. General Communication and Marine Communication (Including Standard Marine Communication Phrases, Communication Skills and Maritime English) **Mark only one oval.*

- ☐ YES
☐ NO

22. **Marine and Telecommunications:** You must have knowledge of broadcasting, transmission, switching, control, and the operation of any sea based or land based telecommunications systems. *

Mark only one oval.

- ☐ YES
☐ NO

23. **Psychology and Understanding of Human Behaviour:** Knowledge of human behaviour is necessary in this line of work as well as performance and what motivates fellow crew members. *


Mark only one oval.

- ☐ YES
☐ NO

24. **In your Opinion what other skills are important for a seafarer to work in shore based maritime industry that have not been mentioned above. (You can write in Kiswahili) ***

25. **In your Opinion what other skills are important for a seafarer to work in shore based maritime industry that have not been mentioned above. ***

A copy of your responses will be emailed to the address you provided

Powered by
 Google Forms

Appendix II – Questionnaire for Seafarers (Officers)

1/31/2019

Seafarer (Officer) Questionnaire Form

Seafarer (Officer) Questionnaire Form

This questionnaire is part of the data collection tools for the dissertation of seafarers transition to shore jobs post seafaring career

* Required

1. Email address *

2. Dear Participant, Thank you for agreeing to participate in this research survey, which is carried out in connection with a Dissertation which will be written by the interviewer, in partial fulfillment of the requirements for the degree of Master of Science in Maritime at the World Maritime University in Malmö, Sweden. The topic of the Dissertation is Addressing the De-Skilling of Seafarers Post Seagoing Careers: The Case Study of Kenya. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted. Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded. Your participation in the interview is highly appreciated. Student's name TALIB IBRAHIM MOHAMMED, Specialization: MARITIME EDUCATION AND TRAINING Email address W1701717@WMU.SE * * * I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrollment. *

Mark only one oval.

- ☐ Yes
☐ No

Personal Information

Kindly fill all the fields

3. Name *

4. Age *

5. CoC *

Mark only one oval.

- ☐ OOW
☐ C/O
☐ Master Mariner
☐ EOOW
☐ 2/E
☐ C/E

6. Current Rank of Service*Mark only one oval.*

- ☐ 4/O
☐ 3/O
☐ 2/O
☐ C/O
☐ Master
☐ 4/E
☐ 3/E
☐ 2/E
☐ C/E
☐ Other: _____

7. Level of Education **Mark only one oval.*

- ☐ Certificate
☐ Diploma
☐ Bachelors
☐ MSc/MA/MBA (Any other Masters Degree)
☐ PhD/Any Doctorate
☐ Other: _____

8. Basic training for officers on oil, and chemical tanker cargo operations **Mark only one oval.*

- ☐ Yes
☐ No

9. Type of Tanker Endorsements *

10. Types of Training in accordance with STCW Chapter V *

11. Any Offshore training **Mark only one oval.*

- ☐ Yes
☐ No

12. Other Applicable Training

Skills Identification:

Determine which of the following listed knowledge is important for a seafarer to work ashore

13. Public Safety and Security (knowledge of relevant policies, strategies, and procedures to promote effective the local, state, or national security operations to ensure protection of any data, people, institutions, and property) **Mark only one oval.*

- ☐ YES
☐ NO

14. Health, safety and the environment. (Knowledge of HSE Policies, implementation and audits) **Mark only one oval.*

- ☐ YES
☐ NO

15. Transportation and logistics: (knowledge of methods and principles for moving goods to people by sea, air, road or rail, along with the benefits and associated costs). **Mark only one oval.*

- ☐ YES
☐ NO

16. Customer and Personal Service: (knowledge of principles and the relative processes for providing excellent personal customer services, which includes needs assessments, ensuring the quality standards, and evaluating the satisfaction of your employer) **Mark only one oval.*

- ☐ YES
☐ NO

17. Administration and Management: (FOR OFFICERS ONLY - knowledge of various business and management principles that are involved in resource allocation, strategic planning, human resources, leadership skills, various production methods, and the adequate coordination of resources and people) **Mark only one oval.*

- ☐ YES
☐ NO

18. General Communication and Marine Communication (Including Standard Marine Communication Phrases, Communication Skills and Maritime English) **Mark only one oval.*

- ☐ YES
☐ NO

19. Marine and Telecommunications: You must have knowledge of broadcasting, transmission, switching, control, and the operation of any sea based or land based telecommunications systems. **Mark only one oval.*

- ☐ YES
☐ NO

20. Geography and Physical Oceanography (FOR DECK OFFICERS ONLY - travelling at sea you need knowledge of the methods and principles behind the features of sea, land, and air masses, as well as their physical characteristics, interrelationships, locations, and distribution along with certain plants, animal life, and human life) **Mark only one oval.*

- ☐ Yes
☐ No

21. Personnel and Human Resources (FOR OFFICERS ONLY - knowledge of the various procedures and principles for training crew, recruitment and selection, the compensation and benefits, certain labour negotiations and relations, as well as information systems.) **Mark only one oval.*

- ☐ Yes
☐ No

22. Psychology and Understanding of Human Behaviour: Knowledge of human behaviour is necessary in this line of work as well as performance and what motivates fellow crew members. You should be able to assess individual differences in ability, interests and personalities, learning methods, psychological research methods, and behavioural and affective disorders, as well as certain treatments. **Mark only one oval.*

- ☐ Yes
☐ No

23. In your Opinion what other skills are important for a seafarer to work in shore based maritime industry that have not been mentioned above. *

A copy of your responses will be emailed to the address you provided

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<https://docs.google.com/forms/d/1FP1eQGUJL8O4c6zyW50lk4EwFB9fwxZqpevj7apfXTE/edit>

4/5

Appendix III – Questionnaire for MTIs (Educational Management and Administration)

1/25/2019

Maritime Education and Training (Administration) Questionnaire Form

Maritime Education and Training (Administration) Questionnaire Form

This questionnaire is part of the data collection tools for the dissertation of seafarers transition to shore jobs post seafaring career

* Required

1. Email address *

2. Dear Participant, Thank you for agreeing to participate in this research survey, which is carried out in connection with a Dissertation which will be written by the interviewer, in partial fulfillment of the requirements for the degree of Master of Science in Maritime at the World Maritime University in Malmo, Sweden. The topic of the Dissertation is Addressing the De-Skilling of Seafarers Post Seagoing Careers: The Case Study of Kenya. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted. Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded. Your participation in the interview is highly appreciated. Student's name TALIB IBRAHIM MOHAMMED, Specialization: MARITIME EDUCATION AND TRAINING Email address W1701717@WMU.SE *** I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrollment. *

Mark only one oval.

- ☐ Yes
☐ No

Abstract

Dynamic changes in operations and technology has influenced tremendous developments and changes within the maritime and shipping industry. As a global industry a number of measures have been put in place to realise consistency and uniformity in training of seafarers for shipboard operations. However, challenges have arisen in mobility and transitions of seafarers across the industry notably the challenges faced by seafarers post seagoing careers. The dissertation presents a critical analysis of the phenomenon through a descriptive and analytical methodology to ascertain the gaps in seafarers training which need to be addressed to enhance suitability of seafarers for onshore jobs. This is approached through a specific case of the Kenyan seafarer. In addressing the phenomenon, the dissertation shall present a proposed framework for programme specifications and reference standards for both Technical and academic training to ensure harmonious transition from technical training to academic training for the seafarers.

Personal Information

Kindly fill all the fields

3. Name *

4. Age *

5. Category/Type of Institution*Mark only one oval.*

- ☐ Training Centre
☐ Training Institute
☐ Polytechnic
☐ National Polytechnic
☐ College
☐ University College
☐ Technical University
☐ University
☐ Maritime Academy

6. Designation in Institution **Mark only one oval.*

- ☐ Vice Chancellor
☐ Registrar in charge of Academics
☐ Registrar in charge of Administration/Planning
☐ Legal Officer
☐ Deputy Vice Chancellor in charge of Academics
☐ Deputy Vice Chancellor in Charge of Administration/Finance/Planning
☐ Dean of Faculty under which Maritime Education and Training falls
☐ Head of an Academic Department directly involved in Maritime Education and Training
☐ Head of Research and Innovation (Director/Registrar etc)
☐ Lecturer
☐ Other: _____

7. Level of Education **Mark only one oval.*

- ☐ Certificate
☐ Diploma
☐ Bachelors
☐ MSc/MA/MBA (Any other Masters Degree)
☐ PhD/Any Doctorate
☐ Other: _____

8. Do you hold any Merchant Navy Officer Qualification (This basically denotes any CoC with or without limitations) **Mark only one oval.*

- ☐ Yes
☐ No

9. If 'YES' in the above question, kindly List the qualifications *

10. If 'NO' in the above question, do you have knowledge of the Maritime Industry or has been familiarised with Maritime Education and Training *

Mark only one oval.

- ☐ Yes
☐ No

11. Are you familiar with regulations including international conventions governing qualification and certification of seafarers at any level? *

Mark only one oval.

- ☐ Yes
☐ No

12. If 'YES' List the regulations that you are familiar with

13. Which of the following is the most relevant in Maritime Education and Training

Mark only one oval.

- ☐ Quality Management System (QMS)
☐ Quality Standards System (QSS)

14. Maritime Education and Training especially Seafarer training is unique in its requirements for trainers, instructors and lecturers. Would your institution through the HR consider job designation, description and specification in equivalence to the common Academic job grades?

Mark only one oval.

- ☐ Yes
☐ No
☐ Maybe

Skills Identification:

Determine which of the following listed knowledge is important for a seafarer to work ashore

15. **Public Safety and Security** (knowledge of relevant policies, strategies, and procedures to promote effective the local, state, or national security operations to ensure protection of any data, people, institutions, and property) *

Mark only one oval.

- ☐ YES
☐ NO

16. **Health, safety and the environment.** (Knowledge of HSE Policies, implementation and audits) *

Mark only one oval.

- ☐ YES
☐ NO

17. **Transportation and logistics:** (knowledge of methods and principles for moving goods to people by sea, air, road or rail, along with the benefits and associated costs). *

Mark only one oval.

- ☐ YES
☐ NO

18. **Customer and Personal Service:** (knowledge of principles and the relative processes for providing excellent personal customer services, which includes needs assessments, ensuring the quality standards, and evaluating the satisfaction of your employer) *

Mark only one oval.

- ☐ YES
☐ NO

19. **Administration and Management:** (FOR OFFICERS ONLY - knowledge of various business and management principles that are involved in resource allocation, strategic planning, human resources, leadership skills, various production methods, and the adequate coordination of resources and people) *

Mark only one oval.

- ☐ YES
☐ NO

20. **General Communication and Marine Communication** (Including Standard Marine Communication Phrases, Communication Skills and Maritime English) *

Mark only one oval.

- ☐ YES
☐ NO

21. **Marine and Telecommunications:** You must have knowledge of broadcasting, transmission, switching, control, and the operation of any sea based or land based telecommunications systems. *

Mark only one oval.

- ☐ YES
☐ NO

22. **Geography and Physical Oceanography (FOR DECK OFFICERS ONLY - travelling at sea you need knowledge of the methods and principles behind the features of sea, land, and air masses, as well as their physical characteristics, interrelationships, locations, and distribution along with certain plants, animal life, and human life) ***

Mark only one oval.

- ☐ Yes
☐ No

23. **Personnel and Human Resources (FOR OFFICERS ONLY - knowledge of the various procedures and principles for training crew, recruitment and selection, the compensation and benefits, certain labour negotiations and relations, as well as information systems.) ***

Mark only one oval.

- ☐ Yes
☐ No

24. **Psychology and Understanding of Human Behaviour: Knowledge of human behaviour is necessary in this line of work as well as performance and what motivates fellow crew members. You should be able to assess individual differences in ability, interests and personalities, learning methods, psychological research methods, and behavioural and affective disorders, as well as certain treatments. ***

Mark only one oval.

- ☐ Yes
☐ No

25. **In your Opinion what other skills are important for a seafarer to work in shore based maritime industry that have not been mentioned above. ***

A copy of your responses will be emailed to the address you provided

Appendix IV – Questionnaire for Industry, Employer Consortium

Maritime Industry (Maritime Education, Training and Certification) Questionnaire Form

This questionnaire is part of the data collection tools for the dissertation of seafarers transition to shore jobs post seafaring career

* Required

1. Email address *

2. Dear Participant, Thank you for agreeing to participate in this research survey, which is carried out in connection with a Dissertation which will be written by the interviewer, in partial fulfillment of the requirements for the degree of Master of Science in Maritime at the World Maritime University in Malmö, Sweden. The topic of the Dissertation is Addressing the De-Skilling of Seafarers Post Seagoing Careers: The Case Study of Kenya. The information provided by you in this interview will be used for research purposes and the results will form part of a dissertation, which will be published online and made available to the public. Your personal information will not be published. You may withdraw from the research at any time, and your personal data will be immediately deleted. Anonymised research data will be archived on a secure virtual drive linked to a World Maritime University email address. All the data will be deleted as soon as the degree is awarded. Your participation in the interview is highly appreciated. Student's name TALIB IBRAHIM MOHAMMED, Specialization: MARITIME EDUCATION AND TRAINING Email address W1701717@WMU.SE * * * I consent to my personal data, as outlined above, being used for this study. I understand that all personal data relating to participants is held and processed in the strictest confidence, and will be deleted at the end of the researcher's enrollment. *

Mark only one oval.

- ☐ Yes
☐ No

Personal Information

Kindly fill all the fields

3. Name *

4. Age *

5. Position in the Company *

6. Level of Education **Mark only one oval.*

- ☐ Diploma
- ☐ Bachelors
- ☐ MSc/MA/MBA (Any other Masters Degree)
- ☐ PhD/Any Doctorate
- ☐ Other: _____

7. Do you hold any Merchant Navy Officer Qualification (This basically denotes any CoC with or without limitations) **Mark only one oval.*

- ☐ Yes
- ☐ No

8. If 'YES' in the above question, kindly List the qualifications *

9. If 'NO' in the above question, do you have knowledge of the Maritime Industry or has been familiarised with Maritime Education and Training **Mark only one oval.*

- ☐ Yes
- ☐ No

10. Are you familiar with regulations including international conventions governing qualification and certification of seafarers at any level? **Mark only one oval.*

- ☐ Yes
- ☐ No

11. If 'YES' List the regulations that you are familiar with

12. What HR Challenges are faced by you company in placing experienced and highly qualified seafarers in shore positions in your company?

13. Do you have a knowledge of the Kenya National Qualification Framework?

Mark only one oval.

- ☐ Yes
☐ No

14. If 'YES' above, Do you think that it adequately recognises technical training

Mark only one oval.

- ☐ Yes
☐ No

15. If 'Yes', how do you support your answer?

16. Do Maritime Training Institutions produce qualified and well trained graduates?

Mark only one oval.

- ☐ Yes
☐ No
☐ Some Institutions

17. Do current Education Regulations help in maintaining and sustaining quality of graduates

Mark only one oval.

- ☐ Yes
☐ No

Skills Identification:

Determine which of the following listed knowledge is important for a seafarer to work ashore

18. Public Safety and Security (knowledge of relevant policies, strategies, and procedures to promote effective the local, state, or national security operations to ensure protection of any data, people, institutions, and property) *

Mark only one oval.

- ☐ YES
☐ NO

19. Health, safety and the environment. (Knowledge of HSE Policies, implementation and audits) **Mark only one oval.*

- ☐ YES
☐ NO

20. Transportation and logistics: (knowledge of methods and principles for moving goods to people by sea, air, road or rail, along with the benefits and associated costs). **Mark only one oval.*

- ☐ YES
☐ NO

21. Customer and Personal Service: (knowledge of principles and the relative processes for providing excellent personal customer services, which includes needs assessments, ensuring the quality standards, and evaluating the satisfaction of your employer) **Mark only one oval.*

- ☐ YES
☐ NO

22. Administration and Management: (FOR OFFICERS ONLY - knowledge of various business and management principles that are involved in resource allocation, strategic planning, human resources, leadership skills, various production methods, and the adequate coordination of resources and people) **Check all that apply.*

- ☐ YES
☐ NO

23. General Communication and Marine Communication (Including Standard Marine Communication Phrases, Communication Skills and Maritime English) **Mark only one oval.*

- ☐ YES
☐ NO

24. Marine and Telecommunications: You must have knowledge of broadcasting, transmission, switching, control, and the operation of any sea based or land based telecommunications systems. **Mark only one oval.*

- ☐ YES
☐ NO

25. Geography and Physical Oceanography (FOR DECK OFFICERS ONLY - travelling at sea you need knowledge of the methods and principles behind the features of sea, land, and air masses, as well as their physical characteristics, interrelationships, locations, and distribution along with certain plants, animal life, and human life) **Mark only one oval.*

- ☐ Yes
☐ No

26. **Personnel and Human Resources (FOR OFFICERS ONLY - knowledge of the various procedures and principles for training crew, recruitment and selection, the compensation and benefits, certain labour negotiations and relations, as well as information systems.) ***

Mark only one oval.

- ☐ Yes
☐ No


27. **Psychology and Understanding of Human Behaviour: Knowledge of human behaviour is necessary in this line of work as well as performance and what motivates fellow crew members. You should be able to assess individual differences in ability, interests and personalities, learning methods, psychological research methods, and behavioural and affective disorders, as well as certain treatments. ***

Mark only one oval.

- ☐ Yes
☐ No

28. **In your Opinion what other skills are important for a seafarer to work in shore based maritime industry that have not been mentioned above. ***

A copy of your responses will be emailed to the address you provided

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 Google Forms

Annex I – Advertisement for Director General, KMA.



KENYA MARITIME AUTHORITY



EXTERNAL ADVERTISEMENT

Kenya Maritime Authority (KMA) is a State Corporation whose mandate is to regulate, coordinate and oversee maritime affairs guided by the Kenya Maritime Act, Cap 370 and the Merchant Shipping Act, Cap 389.

Vision:

To be a leading Maritime Authority transforming Kenya into a globally competitive nation.

Mission:

To ensure sustainable, safe, secure, clean and efficient water transport for the benefit of stakeholders. The Authority wishes to acquire the services of a short-term expert to guide in accelerating formulation and implementation of maritime education training & certification programs for Kenyan seafarers

DESIGNATION:	Maritime Education and Training Expert
REPORTS TO:	Director General
LOCATION/REGION:	KMA head office, Mombasa
TERM OF SERVICE:	Six (6) months to a maximum of one (1) year (contract)

PURPOSE: Responsible for overseeing and accelerating formulation and implementation of maritime education training & certification programs for Kenyan seafarers in accordance with national legislation and IMO Conventions as ratified by the Republic of Kenya.

Role descriptions

- Spearhead development of strategic interventions to guide the implementation of the training and certification projects;
- Spearhead international audit of Kenya maritime education and training;
- Identify training needs by evaluating strengths and weaknesses and translate requirements into training that will groom Kenyan seafarers for the next step of their career path;
- Evaluate ongoing programs to ensure that they conform to international maritime conventions;
- Advise and report to the Director General on all matters arising and connected with the implementation of the projects;
- Coordinate and oversee the implementation of adopted strategies; and,
- Liaise with national maritime training institutes, development partners, Curriculum Development, Assessment and Certification Council, Kenya Institute of Curriculum Development, Kenya Technical Training Colleges, Kenya National Examination Council and any other relevant institute in curriculum development and research for maritime education & training in Kenya.

Role specification

Academic qualifications

- Bachelor's degree in Marine Engineering / Nautical Sciences; or
- Master of Science Degree in Maritime Affairs with Marine Engineering or Nautical Science option

Professional qualifications

- Class 1 certificate of competency with neither area limitation nor tonnage limitation which are issued in accordance with Regulation II/2 of STCW 78 as amended; or
- Higher National Diploma or Bachelor in Science in Nautical Science from a recognized Maritime College or University.

Experience

- At least 10 years experience in international maritime convention development and maritime policy formulation and implementation on matters of education, safety, security.
- Experience maritime education & training maritime training and maritime certification will be an added advantage.

Prospective candidates should send both soft and hard copy applications enclosing detailed curriculum vitae, copies of academic and professional certificates, testimonials, names and addresses of three referees and indicating their current and expected remuneration.

Applications should be addressed to:-

**DIRECTOR GENERAL
Kenya Maritime Authority
P.O. Box 95076 – 80104
Mombasa**

Or drop the application at the KMA, White House, 2nd Floor, Moi Avenue, near MSC Building, Mombasa not later than **Monday 26th November, 2018 at 5p.m.**

Annex II – Advertisement for Vacancy KMA (STCW Expert).



KENYA MARITIME AUTHORITY

EXTERNAL ADVERTISEMENT

Kenya Maritime Authority (KMA) is a State Corporation whose mandate is to regulate, coordinate and oversee maritime affairs guided by the Kenya Maritime Act, Cap 370 and the Merchant Shipping Act, Cap 389.

Vision:

To be a leading Maritime Authority transforming Kenya into a globally competitive nation.

Mission:

To ensure sustainable, safe, secure, clean and efficient water transport for the benefit of stakeholders.

DESIGNATION:	STCW Expert
DEPARTMENT:	Maritime Safety
SUPERVISOR:	Director General
LOCATION/REGION:	KMA head office, Mombasa
JOB GROUP	You will join at Job Group KMA scale 2 – Technical Staff
PURPOSE:	Responsible for evaluating compliance of the IMO conventions, national legislation and regulatory framework in the management of training and certification of Kenyan Seafarers.

Role descriptions

- Spearhead development of strategic interventions to guide the implementation of the training and certification projects;
- Put measures in place for the audit by the European Maritime Safety Agency (EMSA) (flag of MSC) of Kenya maritime education and its effectiveness to produce work ready internationally certified Seafarers
- Advise the Authority and the Parent Ministry on all matters arising and connected with the projects; and
- Coordinate and oversee the implementation of adopted strategies by all parties involved.

Role specification

Academic qualifications

An engineering/nautical qualification; or

Bachelors degree in maritime affairs (maritime safety administration) or maritime education and training or naval architecture will be an added advantage

Professional qualifications

Class 1 certificate of competency with neither area limitation nor tonnage limitation which must be issued in accordance with Regulation II/2 of STCW 78 as amended; or

Higher National Diploma or Bachelor in Science in Nautical Science from Maritime College or University.

Experience

At least 5 years experience as a Master/Chief Engineer of foreign going vessel.

Skills

- Excellent planning and organization skills
- Team player and strong leadership and organization skills
- Ability to work under pressure and meet deadlines

KMA is an Equal Opportunity Employer promoting gender, equity and diversity. Persons with disabilities are encouraged to apply. Canvassing will lead to automatic disqualification.

Prospective candidates should send both hard copy applications enclosing detailed curriculum vitae, copies of professional certificates, testimonials, names and addresses of three referees and indicating their current and expected remuneration addressed to-

**DIRECTOR GENERAL
Kenya Maritime Authority
P.O. Box 95076 – 80104
Mombasa**

Or drop the application at the KMA, White House, 2nd Floor, Moi Avenue, near MSC Building, Mombasa not later than 23rd October, 2018.

Only shortlisted candidates will be contacted.

Annex III – Previous Advertisement for Vacancy KMA (Maritime Education and Training Expert)



KENYA MARITIME AUTHORITY



EXTERNAL ADVERTISEMENT

Kenya Maritime Authority (KMA) is a State Corporation whose mandate is to regulate, coordinate and oversee maritime affairs guided by the Kenya Maritime Act, Cap 370 and the Merchant Shipping Act, Cap 389.

Vision:

To be a leading Maritime Authority transforming Kenya into a globally competitive nation.

Mission:

To ensure sustainable, safe, secure, clean and efficient water transport for the benefit of stakeholders. The Authority wishes to acquire the services of a short-term expert to guide in accelerating formulation and implementation of maritime education training & certification programs for Kenyan seafarers

DESIGNATION:	Maritime Education and Training Expert
REPORTS TO:	Director General
LOCATION/REGION:	KMA head office, Mombasa
TERM OF SERVICE:	Six (6) months to a maximum of one (1) year (contract)

PURPOSE: Responsible for overseeing and accelerating formulation and implementation of maritime education training & certification programs for Kenyan seafarers in accordance with national legislation and IMO Conventions as ratified by the Republic of Kenya.

Role descriptions

- Spearhead development of strategic interventions to guide the implementation of the training and certification projects;
- Spearhead international audit of Kenya maritime education and training;
- Identify training needs by evaluating strengths and weaknesses and translate requirements into training that will groom Kenyan seafarers for the next step of their career path;
- Evaluate ongoing programs to ensure that they conform to international maritime conventions;
- Advise and report to the Director General on all matters arising and connected with the implementation of the projects;
- Coordinate and oversee the implementation of adopted strategies; and,
- Liaise with national maritime training institutes, development partners, Curriculum Development, Assessment and Certification Council, Kenya Institute of Curriculum Development, Kenya Technical Training Colleges, Kenya National Examination Council and any other relevant institute in curriculum development and research for maritime education & training in Kenya.

Role specification

Academic qualifications

- Bachelor's degree in Marine Engineering / Nautical Sciences; or
- Master of Science Degree in Maritime Affairs with Marine Engineering or Nautical Science option

Professional qualifications

- Class 1 certificate of competency with neither area limitation nor tonnage limitation which are issued in accordance with Regulation II/2 of STCW 78 as amended; or
- Higher National Diploma or Bachelor in Science in Nautical Science from a recognized Maritime College or University.

Experience

- At least 10 years experience in international maritime convention development and maritime policy formulation and implementation on matters of education, safety, security.
- Experience maritime education & training maritime training and maritime certification will be an added advantage.

Prospective candidates should send both soft and hard copy applications enclosing detailed curriculum vitae, copies of academic and professional certificates, testimonials, names and addresses of three referees and indicating their current and expected remuneration.

Applications should be addressed to:-

DIRECTOR GENERAL
Kenya Maritime Authority
P.O. Box 95076 – 80104
Mombasa

Or drop the application at the KMA, White House, 2nd Floor, Moi Avenue, near MSC Building, Mombasa not later than **Monday 26th November, 2018 at 5p.m.**

Annex IV – Advertisement for Vacancies Kenya Ferry



KENYA FERRY SERVICES LIMITED

Career Opportunities in Marine Transport Industry

Company Profile

Kenya Ferry Services is a State Corporation, established under the Companies Act (CAP 486) of the Laws of Kenya and operating under the Ministry of Transport, Infrastructure, Housing and Urban Development, mandated with the operation of ferries in the Country. The Company's headquarters are set along the expansive shores of the beautiful and splendid Indian Ocean overlooking the magnificent view of the channel at Peleleza, Likoni, Mombasa.

To strengthen its workforce, KFSL is seeking to recruit dynamic, highly driven and result oriented individuals for the following positions:

Engineering Department

1. Senior Engineering Technician (Mechanical) Grade FM V Post No. 2000-07/12/2018 - 2 Posts

Job Summary

Reporting to the Senior Engineer, the Senior Engineering Technician (Mechanical) will be responsible for co-ordinating routine, corrective and preventive maintenance of vessels and equipment onboard ferries.

Key Responsibilities

- Plan and supervise all mechanical maintenance activities;
- Prepare defects list for vessels' dry docking;
- Prepare and submit daily and monthly vessel maintenance reports;
- Overhaul engines, propellers, pumps, power generating sets, and other equipment;
- Initiate safety procedures onboard a vessel in case of emergency and;
- Initiate development of procurement plans for the mechanical section in the engineering department.

Required qualifications and experience

- A minimum of Higher Technical Diploma in Mechanical Engineering or related field from a recognized institution;
- Be a member of a professional engineering body or its equivalent;
- Possession of Standard Training for Certification and Watch keeping (STCW);
- Possession of Marine Equipment Specialist Certificate will be an added advantage;
- Must have a minimum of twelve (12) years relevant working experience preferably in marine transport industry with at least three (3) years working experience as an Engineering Technician or similar and comparable position; and



- Demonstrable experience in writing, analyzing and communicating complex engineering reports.

2. Engineering Technician (Mechanical) Grade FM VI Post Ref: 2000-34/40/41/42/2018 - 4 Posts

Job Summary

Reporting to the Senior Engineering Technician (Mechanical), the Engineering Technician (Mechanical) will be responsible for co-ordinating routine, corrective and preventive maintenance of vessels and equipment onboard ferries.

Key Responsibilities

- Prepare defects list for vessels' dry docking;
- Prepare and submit daily and monthly vessel maintenance reports;
- Overhaul engines, propellers, pumps, power generating sets, and other equipment;
- Initiate safety procedures onboard a vessel in case of emergency and;
- Initiate development of procurement plans for the mechanical section in the engineering department.

Required qualifications and experience

- A minimum of Diploma in Mechanical Engineering or related field from a recognized institution;
- Standard Training for Certification and Watch keeping (STCW);
- Marine Equipment Specialist Certificate, will be an added advantage;
- Must have a minimum of (nine) 9 years relevant working experience preferably in marine transport industry; and
- Demonstrable experience in technical skills, ability to write, analyze and communicate technical reports.

3. Painter- Grade FU2: Post Ref: 2000-71/2018- 1 Post

Job Summary

Reports to the Senior Engineer and will be responsible for maintenance of paint works

Key Responsibilities

- Maintain paintworks in the marine vessels and infrastructure;
- Paint vessels and general infrastructure;
- Fill in work orders and checklists; and
- Sign-writing.

4.

Required qualifications and experience

- A minimum of Trade Test Grade II in General Works/Painting and Decoration
- A minimum of 3 years relevant experience, preferably in the Marine Industry.
- Ability to read, write and perform simple arithmetic calculations;
- Familiarity with uninvolved, standardised work procedures.



- Fire-fighting and first-aid skills.
- Good inter-personal skills;

4. Welding & Fabrication Technician Grade FM VI Post Ref: 2000-63/2018 - 1 Post

Job Summary

Reporting to the Welding & Fabrication Technician, the Engineering Technician (Mechanical) will be responsible for co-ordinating welding and fabrication works in the engineering & maintenance department.

Key Responsibilities

- Carry out welding & fabrication activities;
- Fill work orders as per assigned tasks.
- Work in conjunction with other section to accomplish assigned duties
- Makes decisions using standard operating procedures

Required qualifications and experience

- A minimum of Diploma in Mechanical Engineering.(Welding and Fabrication)
- Marine Equipment Specialist Certificate will be an added advantage
- Standard Training for Certification and Watch keeping (STCW).
- A minimum of 9 years relevant experience preferably in marine transport industry
- Report writing skills
- Technical skills
- Ability to communicate both inside and outside the organisation;
- Numeric skills

Operations Department

1. Master Coxswain Grade FM V Post Ref: 1000-11/12/2018 – 2 Posts

Job Summary

Reporting to the Senior Operations Officer (Coxswain), the Master Coxswain will be responsible for navigating the ferry safely across the Likoni and Mtongwe channels in order to meet customers' requirements i.e. ferrying passengers, vehicles, and goods across the channel in a scheduled time.

Key Responsibilities

- Ascertain ability and soundness of the ferry through pre-sea checks;
- Steer the vessel during un-berthing or mooring;
- Pilot or navigates the ferry safely and efficiently across the channel and ensuring safety of passengers, crews, vehicles, bikes, handcarts, goods and equipment;
- Log departure and arrivals of ferry journeys and incidents;



- Communicate and respond to calls from Kenya Port Authority control tower among other stations, on the movement of inbound and out bound vessels; and
- Provide directions and instructions during emergencies.
- Disseminate relevant safety information, instructions and guidance to ferry users onboard through the Public Address System.
- Orient and impact training skills to new entrants

Required qualifications and experience

- A minimum of Diploma in Social Science/Management or related field from a recognised university.
- Coxswains Certificate of Competency
- Standard Training for Certification and Watch keeping (STCW)
- A minimum of 6 years relevant experience preferably in marine transport industry
- Seafarers (ITF)
- Ability to write complex reports; and
- Analytical skills.
- Organizational skills
- Personal Survival Skills
- Life Saving Skills
- Basic Fire Fighting skills
- Ability to communicate both inside and outside the organisation.

2. Coxswain- Grade VI- Post Ref:1000-15/17 2018- 2 Posts

Job Summary

Reporting to the Senior Operations Officer (Coxswain), the Coxswain will be responsible for navigating the ferry across the Likoni channel in order to meet customers' requirements ie ferrying passengers, vehicles and goods across the channel in a scheduled time.

Key Responsibilities

- Ascertain ability and soundness of the ferry through pre-sea checks;
- Steer the vessel during un-berthing or mooring;
- Pilot or navigate the ferry safely and efficiently across the channel and ensuring safety of passengers, crews, vehicles, bikes, handcarts, goods and equipment;
- Log departure and arrivals of ferry journeys and incidents;
- Communicate and respond to calls from Kenya Port Authority control tower among other stations, on the movement of inbound and out bound vessels;
- Provide directions and instructions during emergencies; and
- Disseminate relevant safety information, instructions and guidance to ferry users onboard through the Public Address System.

Required qualifications and experience



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- A minimum of Diploma in Social Science/ Management or related field from a recognized institution.
- Coxswains Certificate of Competency;
- Standard Training for Certification and Watch keeping (STCW);
- Seafarers (ITF)
- 3 years' relevant working experience in marine transport industry.
- Demonstrable experience in technical skills, ability to write, analyze and communicate technical reports.

2. Assistant Operations Officer - Grade FMVI: Post Ref: 1000/38/39/42/2018 - 3 Posts

Job Summary

Reporting to the Senior Operations Officer, the Assistant Operations Officer will be responsible for allocating duties to operational staff and oversee smooth running of operations.

Key Responsibilities

- Coordinate movement and availability of ferries as per operational schedule;
- Consolidate traffic sheets and pre-sea checks for records taking and ferry performance;
- Monitor flow of traffic to ensure safe service;
- Ensure operational staff are equipped with necessary working equipment;
- Ensure staff availability as per rota; and
- Ensure staff performs their duties as assigned.

Required qualifications and experience

- A minimum of Diploma in Management or Social Science from a recognized institution;
- Standard Training for Certification and Watch keeping (STCW);
- Seafarers (ITF) will be an added advantage
- A minimum of 3 years relevant working experience preferably in marine transport industry; and
- Ability to write complex reports
- Organizational Skills

3. Security Officer – Grade FMV – Post Ref: 8000-02/2018- 1 Post

Job Summary

Reporting to the Senior Security Officer, the Security Officer will be responsible for providing the strategic direction and overall management of security matters within the organization.

Key Responsibilities

- Ensure overall management of Internal security personnel and all outsourced security providers including hired security guards, national police, and any other enforcement agencies within KFS and coordinate all security related



matters in the organization including meetings (with both internal and external staff), security awareness campaigns;

- Evaluate and appraise performance of hired security service providers and other enforcement agencies deployed to support the organization security needs and make appropriate
- Spearhead development and implementation of company security manuals, policies, work instructions and other necessary tools
- Conduct investigations on serious security matters and make appropriate interventions and/or recommendations on such and other security reports for management and follow up with relevant authorities.
- Conduct security assessments of the entire facility in compliance with policy requirements and the ISPS code and make appropriate reports and follow up for implementation
- Organization Security planning including: Preparation of security budgets in consultation with Finance department; Procurement plan for security in consultation with Procurement department;
- Spearhead, coordinate and implement security awareness activities for staff and Ferry users and relevant stakeholders
- Represent the organization in forums and stakeholders engagement activities on security related matters and any other issues of concern to the organization
- Advise management on security issues within the organization; and
- Develop and maintain a working network within the law enforcement agencies ranks, the local administration, the county government and any other relevant agency

Required qualifications and experience

- A minimum of Bachelors' Degree in Social Sciences/Security Management/Law Enforcement
- Must have actively served in the disciplined services (National Police Service, KDF) and attained the rank of an Officer
- A minimum of 3 years relevant working experience
- Standard Training for Certification and Watch keeping (STCW) will an added advantage
- Must be Computer Literate
- Have Analytical Skills
- Ability to write complex reports
- Must possess High integrity level
- Must have Communication skills
- Must have interpersonal skills
- Ability to work under pressure

4. Security Assistant 1 – Grade FU1- Post Ref:8000-03/2018- 1 Post

Job Summary

The Security Assistant will be reporting to the Security Officer and will be responsible for overseeing efficiency of day to day security activities within the Kenya ferry area as a whole.



Key Responsibilities

- spearhead security operations within the area of operation sanctioned by the senior security officer in consultation with the National Police service officer
- Continuously gather information and intelligence with security bearing and share the same with the security office.
- Carry out investigations of security incidences within the institution and present findings to the relevant office for action
- Conduct regular briefing sessions to outsourced security personnel on processes, procedures and other pertinent issues for purposes of improving service delivery
- Ensure proper utilisation of security infrastructure including security equipment and conducting regular checks to ensure equipment and other infrastructure is in good working condition and appropriate report to relevant office for intervention in case of problems
- Conduct spot checks on deployment of outsourced security personnel for compliance with contract agreement, make reports out of the findings and forward the same to relevant office
- Check and confirm records kept by security guards to ensure they are kept according to the required standards and make report on the same;
- Check daily attendance and deployment schedule of security guards and any other security personnel and filing of records as required
- Inform and advice security officer on any security related matter that may be of importance to the company;

Required Qualifications and Experience

- A minimum of Diploma in Security Management
- Must have actively served with the National Police Service, KDF or NYS as an NCO
- Standard Training for Certification and Watch keeping (STCW) will be an added advantage
- At least 3 years' experience relevant working experience
- Must be Computer Literate
- Have Analytical Skills
- Ability to write complex reports
- Must possess High integrity level
- Must have Communication skills
- Must have interpersonal skills
- Ability to work under pressure

5. Security Assistant II – Grade FU2- Post Ref:8000-17/18/2018- 2 Post**Job Summary**

The Security Assistant will be reporting to the Security Officer and will be responsible for overseeing efficiency of day to day security activities within the Kenya ferry area as a whole.

Key Responsibilities

- spearhead security operations within the area of operation sanctioned by the senior security officer in consultation with the National Police service officer



- Continuously gather information and intelligence with security bearing and share the same with the security office.
- Carry out investigations of security incidences within the institution and present findings to the relevant office for action
- Conduct regular briefing sessions to outsourced security personnel on processes, procedures and other pertinent issues for purposes of improving service delivery
- Ensure proper utilisation of security infrastructure including security equipment and conducting regular checks to ensure equipment and other infrastructure is in good working condition and appropriate report to relevant office for intervention in case of problems
- Conduct spot checks on deployment of outsourced security personnel for compliance with contract agreement, make reports out of the findings and forward the same to relevant office
- Check and confirm records kept by security guards to ensure they are kept according to the required standards and make report on the same;
- Check daily attendance and deployment schedule of security guards and any other security personnel and filing of records as required
- Inform and advice security officer on any security related matter that may be of importance to the company;

Required Qualifications and Experience

- A minimum of Diploma in Security Management
- Must have actively served with the National Police Service, KDF or NYS as an NCO
- Standard Training for Certification and Watch keeping (STCW) will be an added advantage
- At least 1 year relevant working experience.
- Must be Computer Literate
- Have Analytical Skills
- Ability to write complex reports
- Must possess High integrity level
- Must have Communication skills
- Must have interpersonal skills
- Ability to work under pressure

HUMAN RESOURCE AND ADMINISTRATION DEPARTMENT

1. Driver- Grade FU3- Post Ref: 4000-24/2018 - 1 Post

Job Summary

Reporting to the Senior Human Resource Officer, the Driver will be responsible for facilitating staff movement i.e. driving staff to and from KFS & ensure KFS & other stakeholders get mail at the right time daily.

Key Responsibilities

- Facilitate movement of company officials, dignitaries and KFS staff on official duty to assigned destinations;



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- Carry out health checks and cleanliness on the allotted duty vehicle; and
- Run errands such delivery & collection of mail & newspapers to their respective destinations when required

Required Qualifications and Experience

- Minimum of Kenya Secondary School Certificate (KCSE) or its equivalent from a recognized institution;
- Valid BCEFG driving license;
- First Aid Course from St. John Ambulance or KIHBT or any other recognized institution;
- Defensive Driving Certificate from Automobile Association (AA) of Kenya or its equivalent from a recognized institution;
- A valid Certificate of Good Conduct from Criminal Investigations Department;
- Suitability Test for Drivers Grade III will be an added advantage;
- Occupational Trade Test III will be an added advantage;
- 6 years relevant working experience; and
- Demonstrable interpersonal and communication skills.

2. Human Resource & Admin. Clerk - Grade FU2- Post Ref: 4000-13/2018- 1 Post

Job Summary

Reporting to the Senior Human Resource Officer, the Human Resource & Admin. Clerk will be responsible for ensuring effective service delivery to staff, smooth running of Human Resource & Administration Office and processing of Human Resource & Administration data.

Key Responsibilities

- Process and maintain staff duty travel records;
- Process approved casual workers' requisition and maintaining their records;
- Fill in materials requisition forms as requested from time to time for HR department and follow up;
- Co-ordinate issuance of staff uniforms and protective clothing;
- Process students' industrial attachment applications as directed;
- Update and maintain confidential staff personal records; and
- Process staff ID's and passes.

Required Qualifications and Experience

- Minimum of Kenya Secondary School Certificate (KCSE)
- Certificate in Human Resource Management
- 3 Years relevant experience
- Excellent analytical, Interpersonal & Communication Skills

GUIDELINES

Applications, accompanied by a detailed CV containing academic qualifications, professional qualifications, work experience, current and expected remuneration, e-mail addresses, day telephone contacts as well as copies of relevant certificates,



testimonials, national identification card, are invited from persons qualified for the positions described above. The applicants should also provide names, telephone numbers and contact addresses of at least three professional referees who are knowledgeable about their competence and area of specialization.

Applications by qualified and suitable applicants for the position should be sent to the undersigned to be received on or before **14th December, 2018**

The Managing Director,
Kenya Ferry Services Limited,
Headquarters Office,
Gaza Road, Off Mwinyi Babu Road - Peleleza
P.O. Box 96242 - 80110,
MOMBASA.

The reference number and title of the position applied for **MUST** be clearly indicated on the **ENVELOPE**.

Kenya Ferry Services is an equal opportunity employer committed to diversity and gender equity within the organization. Applicants comprising persons living with disabilities (PWDs), those from marginalized areas and women are encouraged to apply.

TERMS OF SERVICE AND REMUNERATION

All the above positions are challenging and offer attractive and competitive remuneration packages which include basic salary, house allowance, medical cover, leave travel allowance and other benefits in accordance with the Kenya Government Public Service guidelines.

SELECTION COMMUNIQUE

Applications without relevant qualifications, copies of documentation/ details as sought for will not be considered. Any form of Canvassing will lead to automatic disqualification. Only shortlisted candidates shall be contacted.

The advert is also available at the Kenya Ferry Services Limited website; www.kenyaferry.co.ke

“Kenya Ferry Services Limited is an Equal Opportunity Employer.”



Annex V – Advertisement Maritime (Ministry-Deputy Director)

- (iii) setting of specifications and standards for the design and quality of personal protective equipment, safety standards for industrial machinery and equipment; and
- (iv) setting of safety standards for industrial machinery and equipment and approval of architectural plans for proposed, intended extension and renovations of workplace premises.

VACANCIES IN THE MINISTRY OF TRANSPORT AND INFRASTRUCTURE DEVELOPMENT

STATE DEPARTMENT FOR TRANSPORT

DEPUTY DIRECTOR, SHIPPING AND MARITIME - ONE (1) POST - V/NO. 16/2018

Basic Salary Scale: Ksh.115,290 – Ksh.153,170 p.m. (Job Group 'R')

For appointment to this grade, a candidate must have:

- (i) served for cumulative period of ten (10) years, an aggregate of which at least three (3) years should have been in the grade of Senior Assistant / Assistant Director, Shipping and Maritime, Job Group 'Q' / 'P' or in a comparable and relevant position in the public service;
- (ii) a Bachelors degree in any of the following disciplines: Social Sciences, Marine Engineering or Economics or equivalent qualification from a university recognized in Kenya;
- (iii) a Masters degree in any of the following disciplines: Maritime Studies, Shipping Management, Maritime Law, Maritime Affairs, Maritime Education and Training, Marine Environment Protection, Environmental Science or equivalent qualification from a university recognized in Kenya;
- (iv) a certificate in any of the following: Law of the Sea, Port Management, Maritime Security, Inland Water Transport, Sea Use Management, Port State Control and Formulation of National Maritime Policy or Shipping Terms from a recognized institution; and
- (v) a certificate in Strategic Leadership Development course lasting not less than six (6) weeks from a recognized institution; and
- (vi) demonstrated a high degree of professional competence, managerial, administrative capability in work performance and exhibited a thorough understanding of national goals, policies and objectives.

Duties and Responsibilities

- (i) formulating, reviewing and implementing policies on shipping and Maritime to ensure safety, security, navigation, search and rescue, port development and inland waterways;
- (ii) domesticating international conventions ratified by Kenya into Policies, Legislations and regulations;
- (iii) implementing standards for Training, Certification and watch keeping (sea times);
- (iv) coordinating matters related to regional and international bodies on Maritime issues;
- (v) facilitating seaborne trade activities in liaison with stakeholders;
- (vi) verifying reports on Shipping transport costs in the region;
- (vii) coordinating activities of State Agencies on matters related to Maritime Safety, Security and Commercial Shipping Development; and
- (viii) compiling and submitting data on imported oil to the International Oil Pollution Compensation Funds:

SENIOR ASSISTANT DIRECTOR, ROADS TRANSPORT - ONE (1) POST - V/NO. 17/2018

Basic Salary Scale: Ksh.94,850 – Ksh.127,110 p.m. (Job Group 'Q')

For appointment to this grade, a candidate must have;

- (i) served for cumulative period of ten (10) years, an aggregate of which at least three (3) years should have been in the grade of Assistant Director Roads Transport/Principal Roads Transport Officer, Job Group 'P' / 'N' or in a comparable and relevant position in the public service;
- (ii) a Bachelors degree in any of the following disciplines: Civil Engineering, Mechanical Engineering, Architecture, Business Administration, Economics/Statistics, Sociology, Public Administration, Anthropology, Urban Planning, Urban Development, Transport Economics or equivalent qualification from a university recognized in Kenya;
- (iii) a Masters degree in any of the following disciplines: Civil Engineering, Mechanical Engineering, Architecture, Business Administration, Economics/Statistics, Sociology, Public Administration, Anthropology, Urban Planning, Urban Development, Transport Economics or equivalent qualification from a university recognized in Kenya;
- (iv) a certificate in strategic leadership development course lasting not less than six (6) weeks from a recognized institution.
- (vi) demonstrated general administrative ability required for direction, control and implementation of Road Transport Programs and Projects.

Annex VI – Advertisement Kenya Ports Authority (MD)



Managing Director

Our client, Kenya Ports Authority (KPA), is a Commercial and Strategic State Corporation mandated to maintain, operate, improve and regulate all sea and inland waterway ports in Kenya. KPA aspires to position the Port of Mombasa as a competitive regional hub. The Port of Mombasa is the gateway to East and Central Africa and is one of the busiest ports along the East African coastline. The Port provides direct connectivity to over 80 ports worldwide and is linked to a vast hinterland comprising Uganda, Rwanda, Burundi, Eastern Democratic Republic of Congo, Northern Tanzania, Southern Sudan, Somalia and Ethiopia by road. A railway line also runs from the Port to Uganda and Tanzania.

The Authority is seeking to recruit an individual with a high degree of integrity and professionalism, impeccable administrative capabilities and strategic orientation to fill the position of Managing Director.

Reporting to the Board of Directors, the Managing Director will be an ex officio member of the Board and will have full control of the Authority and executive management and will establish and operate port services and facilities within the powers delegated by the Board. Additionally, the job holder, will have overall responsibility for maintaining, operating, improving and regulating all scheduled seaports on the Indian Ocean coastline of Kenya, Inland Waterways and Inland Container Depots.

Key Responsibilities

- Formulate and implement an integrated strategic plan for the growth of KPA and the achievement of KPA's vision, mission and corporate objectives;
- Ensure the effective management and utilization of the financial, human and other resources to meet the operational, statutory, social and economic objectives of KPA;
- Determine how policy objectives will be achieved and methods of operation as well as resource requirements;
- Secure effective co-operation and collaboration with other public, private and international bodies and institutions that have important roles for the provision of integrated port services;
- Ensure compliance with policies, laws and regulations;
- Provide leadership and guidance to the general managers of various divisions as well as departmental heads who report to the managing director; and
- Maintain a conducive work environment for attracting, retaining and motivating employees while fostering a corporate culture that promotes ethical practices and good corporate citizenship.

Person Specifications

- Be a holder of a Bachelor's and Master's Degrees in any of the following disciplines: Port Management, Maritime and Shipping Logistics, Engineering, Business, Social Sciences, Science & Technology or related field from a recognised institution;
- Have knowledge and experience of not less than 15 years of relevant work experience with at least eight (8) years served in managerial/leadership role(s) in an organisation of similar complexity as KPA and/or large commercial or public entity with a national mandate;
- Be a member of a recognised professional body and be in good standing;
- Possess Strategic Leadership Development and/or Corporate Governance Certification from a recognised institution;
- Knowledge and understanding of port industry and naval/maritime operations will be an added advantage; and
- Have a thorough understanding of public sector policy and reforms, corporate planning and relevant legislations.

Candidates will be required to satisfy the requirements of Chapter Six of the Constitution of Kenya 2010 including:

- Certificate of Good Conduct from the Directorate of Criminal Investigations;
- Clearance Certificate from the Higher Education Loans Board;
- Tax Compliance Certificate from the Kenya Revenue Authority;
- Clearance from the Ethics and Anti-Corruption Commission; and
- Report from an Approved Credit Reference Bureau.

An attractive remuneration package and benefits await the successful candidate. This appointment is on contractual terms for a period of (3) three years and is renewable for a further term of (3) three years based on performance and business requirements.

If you believe you can clearly demonstrate the ability to meet the relevant criteria for the role above, please submit your application including copies of your academic and professional certificates, testimonials and your curriculum vitae, including among other details your current position, current remuneration, email and telephone contacts of three (3) referees familiar with your qualifications and work experience.

To be considered, your application must be received by not later than **16 November, 2018** addressed to:

**The Director,
Executive Selection Division
Deloitte Consulting Limited
Deloitte Place
Waiyaki Way Westlands, Nairobi, Kenya
Email: esd@deloitte.co.ke**

The shortlisted candidates will be interviewed immediately after the closing date of applications. Shortlisted candidates will therefore be expected to be available at short notice to attend interviews. Please note that only shortlisted candidates will be contacted.

Kenya Ports Authority is an Equal Opportunity Employer (EOE) and is committed to diversity and gender equality. Canvassing will lead to automatic disqualification.

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Annex VII – Advertisement for Vacancies Kenya Ports Authority (Bandari College)

EXISTING JOB OPPORTUNITIES KENYA PORTS AUTHORITY VACANCY ANNOUNCEMENT	
<p>WHO WE ARE Kenya Ports Authority is a state corporation under the Ministry of Transport and Infrastructure established by an Act of Parliament on 20th January 1978 with the mandate to "maintain, operate, improve and regulate all scheduled seaports" situated along Kenya's coastline.</p> <p>The Authority is responsible for the operation and management of the Port of Mombasa, other small scheduled seaports, Inland Container Depots and liaison offices in Kampala, Kigali and Bujumbura that caters for all transit countries.</p> <p>VISION, MISSION AND OBJECTIVES</p> <p>VISION World class sea-ports of choice.</p> <hr/> <p>MISSION To facilitate and promote global maritime trade through the provision of competitive port services.</p> <hr/> <p>OUR CORE VALUES</p> <p>i) Customer focus: Service excellence is key to our operations and we endeavor to exceed customer expectations. ii) Integrity: We uphold fairness, honesty, professionalism and transparency in all our undertakings. iii) Team work: We embrace team spirit in all that we do. iv) We Care: We care for our staff, the communities around us and are sensitive to the environment.</p> <p>OUR OBJECTIVES The strategic objective is to enhance productivity and reduce the cost of doing business through the following initiatives:</p> <ul style="list-style-type: none"> To be a Regional Hub To Promote Principles of Good Corporate Governance To Enhance Partnerships, Collaborations and Linkages To Manage Business Risks To Enhance Financial Sustainability To Enhance Labour Productivity To Revitalize Inland Container Depots (ICDs) To Develop a Growth Strategy for Small Ports To develop and Operationalize the Port of Lamu <p>The Authority is seeking to recruit high caliber professionals, for Bandari College its staff training institution and Medical Services Department to support and strengthen its workforce.</p>	
<p>BANDARI COLLEGE POST OF TRAINING OFFICER (NAUTICAL STUDIES) GRADE HM.2</p> <p>Overall Objective Reporting to the Deputy Principal Academics the job holder is responsible for provision of effective Nautical training and overall management of the Marine Training Unit.</p> <hr/> <p>Key responsibilities will include: Developing suitable training programmes that addresses marine training needs which comply to IMO, national and other international conventions on Maritime training.</p> <ul style="list-style-type: none"> Acting as a liaison officer with Kenya Maritime Authority in the implementation of training of STCW programme. Course facilitation and coordination Preparation of course timetables. Administering examinations. Identifying resource persons for course facilitation. Ensuring availability of practical training equipment and adequate stock of teaching materials. Designing and up-dating training courses and programmes in response to identified needs. Maintaining training records and preparation of monthly, quarterly and annual training reports. Ensuring Marine training equipment are regularly inspected and certified as per the IMO regulations. Ensuring safe custody of all marine training materials and equipment. Managing and coordinating student's industrial attachment programme. Carrying out analysis of course evaluation reports. Drawing the Unit's training budget. Any other duties as assigned or delegated by the Deputy Principal (Academic). <hr/> <p>Skills & Attributes:</p> <ul style="list-style-type: none"> A relevant university degree from an accredited institution At least 5 yrs experience on foreign going ships as a Captain with Class 1 Certificate of Competency Teaching experience of at least 3yrs will be an added advantage <p>OR</p> <ul style="list-style-type: none"> A Master /Class 1 (FG) Certificate of Competency or a HND in Nautical Studies - At least 8 yrs experience on foreign going ships Must have served at sea as a navigational officer, have up to date knowledge / experience in nautical and marine safety Knowledge of STCW '95; Must be computer literate Teaching experience of at least 3yrs will be an added advantage 	<p>Key responsibilities will include:</p> <p>Carrying out teaching duties.</p> <ul style="list-style-type: none"> Participating in curriculum development activities including the identification of customer requirements, planning, development and evaluation of courses and course material. Ensuring that instructional aids, equipment and stationary are available and maintained. Setting appropriate lesson objectives and preparing relevant lesson notes. Maintaining daily class register. Maintaining student records. Participating in arrangements of examinations, including setting, marking and invigilation duties. Organizing practical instructional sessions. Assisting with the provision of an effective counselling service to students on academic, non-academic and welfare matters as required. Participating in ensuring college activities are undertaken within Health and Safety guidelines to ensure safe working practice. Participating in budget preparation of the unit. Any other duties as assigned or delegated by the Deputy Principal (Academic). <hr/> <p>Skills & Attributes:</p> <ul style="list-style-type: none"> A relevant university degree from an accredited institution At least 5 yrs experience on foreign going ships as a 2nd Engineer Class 2 Teaching experience of at least 3yrs will be an added advantage <p>OR</p> <ul style="list-style-type: none"> A Class II Certificate of Competency (Foreign Going) or a Higher National Diploma in Marine Engineering At least 6 yrs experience on foreign going ships Must have up to date knowledge / experience in Marine engineering and marine safety Knowledge of STCW '95 Must be computer literate Must have served as a 2nd Engineer or 3rd Engineer Teaching experience of at least 3yrs will be an added advantage <p>POST OF ASSISTANT TRAINING OFFICER (SEAMANSHIP) GRADE HM.3</p> <p>Overall Objective Reporting to Training Officer Seamanship, the job holder is responsible for the administration and management of STCW and Nautical science courses and delivery.</p> <hr/> <p>Key responsibilities will include:</p> <ul style="list-style-type: none"> Carrying out teaching duties. Participating in curriculum development activities including the identification of customer requirements, planning, development and evaluation of courses and course material. Ensuring that instructional aids, equipment and stationary are available and maintained. Setting appropriate lesson objectives and preparing relevant lesson notes. Maintaining daily class register. Maintaining student records. Participating in arrangements of examinations, including setting, marking and invigilation duties. Organizing practical instructional sessions. Assisting with the provision of an effective counselling service to students on academic, non-academic and welfare matters as required. Participating in ensuring college activities are undertaken within Health and Safety guidelines to ensure safe working practice Participating in budget preparation of the unit. Any other duties as assigned or delegated by the Deputy Principal (Academic). <hr/> <p>Skills & Attributes:</p> <ul style="list-style-type: none"> A relevant university degree from an accredited institution At least 5 yrs experience on foreign going ships as a Chief Officer Class 2 Teaching experience of at least 3yrs <p>OR</p> <ul style="list-style-type: none"> A class II Certificate of Competency (Foreign Going) or a Higher National Diploma in Nautical Studies At least 6 yrs experience on foreign going ships Must have served at sea as a navigational officer, have up to date knowledge / experience in nautical and marine safety Knowledge of STCW '95; Must be computer literate Must have served as a Chief Officer or 3rd Engineer Teaching experience of at least 3yrs will be an added advantage <p>POST OF WORKSHOP ASSISTANT (ELECTRICAL ENGINEERING) GRADE HG2/HG1</p> <p>Overall Objective Reporting to the Assistant Training Officer (Marine Engineering) the job holder is responsible for course materials/equipment availability for use by trainers/students and general upkeep of the workshops.</p> <hr/> <p>Key responsibilities will include:</p> <ul style="list-style-type: none"> Preparing course materials as directed by the trainers Assisting in organizing laboratory/workshop tests Ensuring availability of materials, tools and equipments Maintaining tools, machines and material records. Setting appropriate laboratory/workshop equipment for the projects as directed by the trainer Arranging practical sessions Assessing condition of workshop training tools, equipment and plant for replacement Leading demonstration in the workshop labs. Maintaining tools and equipment Controlling stores inventory



Annex VI – Advertisement for Vacancies Kenya Ports Authority (Other Vacancies)

EXISTING JOB OPPORTUNITIES AT KENYA PORTS AUTHORITY

Kenya Ports Authority is a state corporation under the Ministry of Transport and Infrastructure established by an Act of Parliament on 20th January 1978 with the mandate to "maintain, operate, improve and regulate all scheduled seaports" situated along Kenya's coastline. The Authority is responsible for the operation and management of the Port of Mombasa, other small scheduled seaports, Inland Container Depots and liaison offices in Kampala, Kigali and Bujumbura that cater for all transit countries.

VISION
World class sea-ports of choice

MISSION
To facilitate and promote global maritime trade through the provision of competitive port services

OUR CORE VALUES
Customer Focus-Integrity, Team Work and Care

The strategic objective of the Authority is to enhance productivity and reduce the cost of doing business through the following strategic initiatives:

- To be a Regional Hub
- To Promote Principles of Good Corporate Governance
- To Enhance Partnerships, Collaborations and Linkages
- To Manage Business Risks
- To Enhance Financial Sustainability
- To Enhanced Labour Productivity
- To Revitalise Inland Container Depots (ICDs)
- To Develop a Growth Strategy for Small Ports
- To Develop and Operationalise the Port of Lamu

The Authority is seeking to recruit high caliber professionals as follows:

1. HUMAN RESOURCE DEPARTMENT POST OF HEAD OF HUMAN RESOURCES GRADE HE2

Overall Objective

Reporting to the General Manager - Human Resources & Administration, the job holder is responsible for overseeing and co-ordinating The Human Resources Development, Performance Management, Resourcing and Welfare Activities and Services within the Authority.

Tasks and Responsibilities:

- Staff development, monitoring performance and approving staff administrative procedures
- Controlling and co-ordinating the activities of the Human Resources Department to ensure the delivery of efficient and timely day to day human resource services to user departments
- Ensuring observance of statutory regulations with regard to leave, adherence to minimum wage standards and compliance to workers' compensation requirements
- Overseeing the development and implementation of the Authority's welfare policies in ensuring that activities are undertaken in a cost effective manner
- Overseeing the man power planning function of the Authority ensuring the Authority has sufficient capacity in terms of staffing and skills
- Approving and participating in the formulation of policies and strategies for the maintenance of sound staffing systems including the development of procedures for the recruitment, promotion and the development of staff
- Overseeing the resourcing function of the Authority
- Receiving requests from Departmental Heads and thereafter reviewing options on whether to source candidates internally or externally. Chair the Intermediate Staffing Committee (Grade HM4 and below) and is the Secretary of the Senior Interviewing Panel (Grade HM1 to Grade HM3)
- Overseeing the development and implementation of disciplinary and grievance policies to thereby advise/assist Departmental Heads on all disciplinary matters
- Overseeing the implementation of the training needs assessment/survey including the sourcing for cost effective training development solutions and evaluation of training/development activities to ensure business needs are met and is therefore secretary of the Training Committee.
- Developing and monitoring the implementation of performance review systems and procedures and ensuring that performance gaps identified are addressed through relevant and cost effective training.
- Directing the development and maintenance of sound computerised HR management information systems
- Assisting in conducting and developing proposals with regard to salary reviews and remuneration. Overseeing salary payroll administration and ensuring the implementation of pay/reward and employment policies, which motivate employees to deliver outstanding performance and customer service
- Assisting in the negotiations of the CBA and is responsible for implementation of agreed recommendations e.g. salary increases, leave or allowances.
- Preparing, in liaison with the relevant branch of the financial services division, the budget for the Human Resources Department and exercising control on expenditure
- Liaising with the representatives of workers' organisations on matters relating to the terms and conditions or service for unisonable staff

Skills & Attributes:

- Master's Degree in Human Resource Management or any other relevant field from a recognised institution
- Post Graduate qualifications in Human Resources Management
- Member of a recognised Human Resource professional body
- ICT skills
- Good knowledge in Port Operations
- Demonstrated high degree of professional competency, administrative capabilities and initiative in the general organisation and management of human resource and a thorough understanding of HR policies, regulations, employee relations, labour laws and other statutes that impact HR matters

Experience:

- 7 years' experience in a similar role in a reputable organisation with at least 5 year's relevant experience at senior management level

Other Requirements:

Applicants will also be expected to fulfill the requirements of Chapter 6 of the constitution of Kenya. Specifically, they must obtain and submit the following certification:

- Certificate of Good Conduct from the Directorate of Criminal Investigations
- Clearance Certificate from the Higher Education Loans Board (HELB)
- Tax Compliance Certificate from the Kenya Revenue Authority (KRA)
- Clearance from the Ethics and Anti-Corruption Commission (EACC)
- Clearance from the Credit Reference Bureau (CRB)

2. MARINE ENGINEERING DEPARTMENT POST OF HEAD OF MARINE ENGINEERING GRADE HE2

Overall Objective

Reporting to the General Manager - Engineering Services, the job holder is responsible for management of all functions of the Marine Engineering Department, ensuring that quality marine engineering services are offered and that high quality equipment availability is maintained for shipping operations at all times.

Tasks and Responsibilities:

- Monitoring and controlling through the Principal Engineers all marine engineering activities projects undertaken by the Department
- Allocating duties and supervising Principal Marine Engineers
- Advising Management on Marine Engineering matters and giving leadership in formulating equipment replacement programmes and specifications for acquisition of marine crafts and related engineering equipment.
- Evaluating the needs of departmental staff for training and development
- Ensuring that all operating systems are effected in the department
- Providing specialized advice to the General Manager - Engineering services on all marine engineering matters.
- Enforcing observance of statutory regulations and insurance requirements for marine crafts and equipment.
- Schedule planned maintenance and repairs of marine crafts
- Developing and maintaining procedures for ensuring the sustenance of classification society standards.
- Participating in tender evaluations
- Maintaining updated records of drawings for projects and alterations undertaken on existing marine craft and equipment
- Requisitioning of marine parts, spares and materials
- Managing outsourced services
- Consulting with The Head of Marine Operations on the performance of various floating Craft
- Ensuring that all operating systems are effective in the department

Skills & Attributes:

- Bachelor's Degree in Marine Engineering or its Equivalent or a Higher National Diploma in Marine Engineering with Class I Marine Engineer's Certificate of Competency - Unlimited. (Professional)
- Member of a recognised Marine Engineers professional body
- ICT skills
- Senior Management courses
- Sound knowledge of Port Infrastructure and operations
- Demonstrated high degree of professional competency, administrative capabilities in general management and maintenance of Marine Crafts & Equipment

Experience:

- 7 years' experience in a similar role in a reputable marine organisation with at least 5 years' relevant experience at senior management level

Other Requirements:

Applicants will also be expected to fulfill the requirements of Chapter 6 of the constitution of Kenya. Specifically, they must obtain and submit the following certification:

- Certificate of Good Conduct from The Directorate of Criminal Investigations
- Clearance Certificate from the Higher Education Loans Board (HELB)
- Tax Compliance Certificate from Kenya Revenue Authority (KRA)
- Clearance from the Ethics and Anti-Corruption Commission (EACC)
- Clearance from the Credit Reference Bureau (CRB)

3. ETHICS AND INTEGRITY DEPARTMENT POST OF HEAD OF ETHICS AND INTEGRITY, GRADE HE2

Overall Objective

Reporting to the General Manager - Board and Legal Services, the job holder is responsible for providing leadership in the ethics and integrity department in carrying out and supporting the Authority's vision, mission and values by strengthening the Port's ethical climate so that honour is cherished, personal integrity and ethical courage are the cultural norms and all employees are supported and encouraged to comply with the organisation code of conduct and ethics and promote ethical practices in the workplace.

Tasks and Responsibilities:

- Ensuring drafting of policies and procedures regarding the Code of Ethics is done
- Enforcing the implementation of Code of Conduct and Ethics of the Authority
- Managing the maintenance of records on reported incidences/cases, initiating investigations when required and review the results of investigations
- Responding to alleged violations of rules, regulations, policies, procedures and standards of conduct by evaluating or recommending the initiation of investigative procedures
- Developing and overseeing systems for handling of violations
- Reviewing current surveillance processes to determine whether enhancements are required and confirming regulatory risks are appropriately being monitored



KEBS ISO 9001:2008 Certified Org. No. 087

Annex V – Advertisement for Vacancies Maritime (Ministry-Shipping and Maritime Officer)



MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT STATE DEPARTMENT FOR TRANSPORT

Telegrams: "TRANSCOM5", Nairobi
Telephone: (020) 2729200
Email: info@transport.go.ke

TRANSCOM BUILDING
NGONG ROAD
P.O. Box 52692 - 00200
NAIROBI

Ref. NO. MOT71/P/HRM/007/3 VOL.1/112

27th November, 2017

- All Principal Secretaries
- The Secretary /Chief Executive Officer, PSC (K)
- The Solicitor General, State Law Office
- The Comptroller of State House
- The Inspector General National Police Service
- All Heads of Departments

INTERNAL ADVERTISEMENT

Applications are invited from suitably qualified Kenyans for the following intern positions in the Ministry of Transport, Infrastructure, Housing and Urban Development, State Department for Transport.

Eligible applicants are requested to fill one application form for Internship Programme. The form can be downloaded from Public Service Commission Website, www.publicservice.go.ke.

S/NO	DESIGNATION	NO OF POSTS	VACANCY NO.
1.	Shipping and Maritime Officer	2	1/2017
2.	Aircraft Accident Investigator (operations/technical)	2	2/2017
3.	Air Transport Officer	2	3/2017
4.	Road/Railway Transport Officer	1	4/2017
5.	Economist II/Statistician II	1	5/2017
6.	Administrative Officer	1	6/2017
7.	Public Communication Officer	1	7/2017

Completed application forms together with CV, Copies of academic/professional certificates and identity card should reach the:

*The Principal Secretary
Ministry of Transport, Infrastructure, Housing and Urban Development
State Department for Transport
P.O. BOX 52692-00100
NAIROBI*

or

Hand delivered to the Director Human Resource Management & Development Office, Ministry of Transport, Infrastructure, Housing and Urban Development, State Department for Transport, Transcom Building, 1st Floor, Room No. 119 on or before 29th December, 2017

DETAILS OF THE POSTS

1. VACANCY NO.1/2017 SHIPPING AND MARITIME OFFICER– TWO (2) POSTS

Requirements for appointment

- i. Bachelors degree in the following disciplines: Social Sciences from a recognized institution, and
- ii. Certificate in Computer application skills from a recognized institution.

Duties and Responsibilities

- i. Collating data on shipping and maritime affairs
- ii. Drafting briefs on shipping and maritime matters

2. VACANCY NO.2/2017 AIRCRAFT ACCIDENT INVESTIGATOR (OPERATIONS/TECHNICAL) – ONE (1) POST

Requirements for appointment

Operations

- i. Bachelors degree in any of the following disciplines:- Aviation Safety; Aviation Science; Airline Operations; Psychology or Human Factors from a recognized institution;

Appendix V - Final Proposed Learning Outcomes Derived from Mapped Skills

Cluster	Dominant Skills	Proposed Learning Outcomes
Ship Management	<p>Analytical, statistical, math and computer skills</p> <p>QHSSE Knowledge</p> <p>Human resource knowledge</p> <p>Contract management</p> <p>Business development</p> <p>Supply chain operations and processes</p>	<p>Demonstrates understanding of business and financial analysis</p> <p>Build, Leads and manage high performing teams</p> <p>Builds cooperative partnerships with internal and external stakeholders and leverages relationships to meet organizational objectives.</p> <p>Expresses ideas and information, verbally and in writing, persuasively and openly, listening to understand</p>
Cargo Operations / Logistics	<p>QHSSE Knowledge</p> <p>Maritime Operations and Freight Trading</p> <p>contract management</p> <p>Business Development</p> <p>Managing logistics, storage and warehousing</p>	

	supply chain operations and processes	
Port and Terminal Operations	QHSSE Knowledge	
Marine equipment manufacture	Business Development	
Marine Equipment Sales	contract management Business Development	
MET, R&D	QHSSE Knowledge	
Maritime and Admiralty Law	contract management	
Business, Economics and Finance	contract management Business Development	
Port Pilotage		
Surveying, Inspections		
Ship, Yacht building / Repair	QHSSE Knowledge Business Development contract management	
Marine Insurance		
Marine Equipment Maintenance and Service		
Ship Agency, Broking, Chartering	analytical, statistical, math and computer skills contract management Business Development	
Classification Society Operations	QHSSE Knowledge analytical, statistical, math and computer skills	

Utility Services (Salvage etc.)	contract management analytical and statistical skills	
Clearing and Forwarding	analytical, statistical, math and computer skills Supply Chain, Logistics, Information Systems Maritime Operations and Freight Trading	

Appendix VI- Table of Skills by Vacancies for selected Shore-based Jobs

	Vacancy	Organisation	Roles and Responsibilities	Qualification	Corresponding skills and knowledge
1	STCW Expert	KMA	<ul style="list-style-type: none"> • Training program development • Development of strategic interventions • Audit • Advise on projects 	<ul style="list-style-type: none"> • HND Nautical/ Marine Engineering • Undergraduate – marine engineering/nautical • CoC required 	<ul style="list-style-type: none"> • Maritime and shipping regulations • Planning Organisational management • Leadership • Policy and procedure formulation • Strategic planning • Business planning • Operational budgeting and financial understanding
2	MET Expert		<ul style="list-style-type: none"> • Implementation of adopted strategies • Career development <ul style="list-style-type: none"> • Liason and coordination 		
3	Director General	KMA	<ul style="list-style-type: none"> • Ensuring compliance to maritime policies, 	<ul style="list-style-type: none"> • University degree • Masters degree an added advantage 	<ul style="list-style-type: none"> • Maritime/ shipping regulations

			<p>procedures and regulations</p> <ul style="list-style-type: none"> • Strategic planning and management • Business planning • Financial resources and assets management • Supervising human resources development • Promoting ethical practises and corporate governance • Stakeholder liaison 		<ul style="list-style-type: none"> • Planning Organisational management • Leadership • Policy and procedure formulation • Strategic planning • Business planning • Operational budgeting and financial understanding • Corporate governance • Human resource understanding
4	Training Officer (Nautical)	KPA	<ul style="list-style-type: none"> • Curriculum development • Liaison and coordination • Internal Audit • Student management 	<ul style="list-style-type: none"> • HND • Degree • CoC required 	<ul style="list-style-type: none"> • Curriculum design, development and implementation • Examination and assessment • Knowledge management

			<ul style="list-style-type: none"> • Analysis and evaluation • Managing equipment • Budgeting • Examination and Assessment management 		<ul style="list-style-type: none"> • Strategic planning and management • Budgeting and financial knowledge • Basic human resource management • Management skills • Leadership and organisational management skills • Quality knowledge
	Assistant Training Officer (Marine Engineering and Nautical)		<ul style="list-style-type: none"> • Curriculum development • Student management • Analysis and evaluation • Managing equipment and instructional aids • Examination and Assessment management 		

	HOD Marine Engineering	KPA	<ul style="list-style-type: none"> • Monitoring and control of engineering activities • Supervision, leadership and coordination • Scheduling planned maintenance • Sustenance of class standards • Requisition and tender evaluation 	<ul style="list-style-type: none"> • University degree • CoC is considered 	<ul style="list-style-type: none"> • Strategic planning and management • Budgeting and financial knowledge • Basic human resource management • Management skills • Leadership and organisational management skills • Quality knowledge • Maintenance planning • Tender evaluation
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Appendix